

The

CHEMIST AND DRUGGIST

for RETAILER — WHOLESALER — MANUFACTURER

JANUARY 12, 1952



Mr.

Mr.

Mr.

Mr.

Mr.

Miss.

your customers will remember

PLEASE ZEPHROL'

de mark

brand

cough syrup

because of its rapid effectiveness in relieving irritating coughs, and because of its palatability.

Retail Price

Containers of 2½ fl. oz. 2s. Od.
plus Purchase Tax

BONUS TERMS ARE AVAILABLE
FROM WHOLESALERS IN RETURN
FOR DISPLAY SERVICES. ATTRACTIVE
SHOWCARDS AVAILABLE ON REQUEST.

manufactured by



MAY & BAKER LTD

distributors

PHARMACEUTICAL SPECIALITIES (MAY & BAKER) LTD., DAGENHAM

MA249

Pride of Place.....

Lamington, Lanarkshire.



T. & H. SMITH LTD.

Manufacturers of Fine Chemicals and Pharmaceutical Preparations

APIOL • ARECOLINE • ATROPINE • BRUCINE • CANTHARIDIN • CAPSICIN
CHRYSAROBIN • CODEINE • DIACETYLMORPHINE • EPHEDRINE • ERGOTIN
THYLMORPHINE • GINGERIN • HOMATROPINE • HYOSCYAMINE • LEPTANDRIN
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HYSOSTIGMINE • PICROTOXIN • PILOCARPINE • SANTONIN • STRYCHNINE

EDINBURGH • SCOTLAND

A good recipe for winter well-being



Ulsters and umbrellas? Menthol and mustard baths? Yes, but these can never be more than the decoration and the seasoning. The main ingredient must be sound nutrition every time—a full ration of the protective and formative vitamins A and D in particular.

That is why "ADEXOLIN every day" is such a worthwhile recommendation during the winter months—or ADEXOCAL if extra calcium is needed to stave off chilblains.



ADEXOLIN Capsules *Trade mark*

Mainly for adult customers
6,000 units vitamin A and
1,000 units vitamin D per capsule
Tins: 25, face price 2/-;
trade price, 18/- per doz.
100, face price 6/-;
trade price, 54/- per doz.

*Parcel No. 1:
2 doz. x 25, £1. 12. 0. net
*Parcel No. 2:
1 doz. x 100, £2. 8. 0. net

ADEXOCAL Tablets *Trade mark*

Extra protection against chilblains
6,000 units vitamin A,
1,000 units vitamin D and
300 mg. calcium phosphate per
tablet

Bottles: 50, face price 3/4 plus
10d. tax; trade price, 30/- per doz.
*Parcel No. 3:
1 doz. x 50, £1. 6. 8. net
plus 10/- tax

ADEXOLIN Liquid *Trade mark*

Especially suitable for infants
12,000 units vitamin A and
2,000 units vitamin D per cc.
Bottles: 14 cc., face price 2/3;
trade price, 20/- per doz.
2-oz., face price 6/-;
trade price, 54/- per doz.

*Parcel No. 4:
2 doz. x 14 cc., £1. 16. 0. net
Parcel No. 5:
1 doz. x 2-oz., £2. 8. 0. net

*Order parcels direct from Greenford,
quoting wholesaler's name for invoicing
purposes*

*Parcel includes attractive display
outer

ROTER

We regret to announce that the recent import restrictions have cut the supplies of

ROTER GASTRIC ULCER TABLETS
for the next 6 months to about 6% of requirements.

Our usual shipments have also been held up for some 6 weeks pending the decision by the Board of Trade, with the result that the shortage of Roter Tablets is already acute. The supply position will deteriorate still further in the near future.

As the Roter shortage will have very serious consequences for the many thousands of chronic ulcer cases dependent on Roter therapy, will Pharmacists please inform their Roter customers of the cause of this shortage and suggest to them that they write to us, giving brief details of their cases, with a view to helping us in our efforts to obtain adequate supplies.



F·A·I·R LABORATORIES

L I M I T E D



179 HEATH ROAD, TWICKENHAM, MIDDLESEX

Fine

EVANS

Chemicals

*Bulk supplies of the following
are available:*

1 Glycerophosphates

2 Magnesium Trisilicate B.P

*Samples and quotations can be obtained from
Home Sales Department, Speke, Liverpool 19
or 50 Bartholomew Close, London, EC1*

EVANS MEDICAL SUPPLIES LTD

LIVERPOOL AND LONDON

ESTABLISHED 1878

*Labels -
Cartons -
Envelopes -
& EVERY DESCRIPTION
OF MEDICAL PRINTING*

ALF. HARRISON & SONS

Chemists' Printers

BURLEY ROAD, LEEDS, 4.

TELEPHONE - LEEDS 52668-9 TELEGRAMS 'IDEAS LEEDS'

104

Cephos sells !

backed by forceful and continuous advertising

★ SPOT NEWS

Retail Prices—8 Powders or 16 Tablets, 1/8d. - 21 Powders or 42 Tablets 3/11d. - 110 Doses, Powders or Tablets, 20/- 2 doses for 5½d.

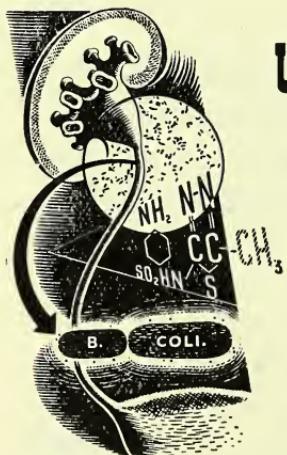
Trade enquiries

to:

Cephos Ltd
Blackburn



QT1



UROLUCOSIL

2—SULPHANILAMIDO—5—METHYL—1—THIO 3: 4—DIAZOLE

UROLUCOSIL is a new sulphonamide for the specific treatment of *B. coli* infections of the urinary tract; general practitioners treat such infections very frequently.

Important points about UROLUCOSIL are:—

- Small dosage (0.1 G.) 4 hourly.
- No side effects.
- Great solubility—98% at a pH of 7.
- No depression.

Physicians throughout the United Kingdom are being informed personally, in interviews with medical representatives, by mail and by advertising in the medical journals, of the properties of UROLUCOSIL. Pharmacists are advised to hold stocks sufficient to meet prescription demands.

UROLUCOSIL IS LISTED AS
PART I, SCHEDULE I, SCHEDULE IV POISON
and is not subject to purchase tax.
It is available in bottles
of 25 tablets and 250 tablets.

William R. WARNER and Co. Ltd.

POWER ROAD, LONDON. W.4

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Shelf Appeal!

Now—when customers require something to prevent Colds this new shelf display card is the everything to remind them of ESOBACTULIN. Occupying little space it is bringing large sales.

Send for YOURS to-day!

DISPLAY NOW AND GET RESULTS

Supplies of pocket calendars for counter distribution are also available on request.

SOUTHON LABORATORIES LIMITED
84/88, UPPER RICHMOND ROAD, LONDON, S.W.15

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... ANOTHER UNUSUAL USE FOR

Even the toughest skin feels the rub of handling nets wet from the sea. Some enterprising fishermen now bind their hands with 'Sleek'. They find it a perfect protection and entirely unaffected by water.

Yes, 'Sleek' does get put to some intriguing uses. These unusual jobs lend dramatic emphasis to the unique qualities which make 'Sleek' a best seller of **outstanding value for everyday use in hospital and surgery practice**. Above all, because the plastic base material is impervious to liquids, it is waterproof. 'Sleek' is washable yet does not soil easily. It is smooth and thin yet very strong. It is extensible and pliable. It does not 'catch' or fray.

'Sleek'

plastic zinc oxide adhesive strapping

ST28



to emphasise 8 selling qualities

WATERPROOF · GREASEPROOF · WASHABLE
SMOOTH · THIN · STRONG · PLIABLE · NON-FRAYING

'Sleek' PLASTIC ZINC OXIDE ADHESIVE STRAPPING

Retail Prices : 2½ YARD ROLLS, 1 inch—1/3 ;
5 YARD ROLLS. 1 inch—2/- ; 2 inch—3/6 ; 3 inch—5/- ; 4 inch—6/3

HERTS PHARMACEUTICALS LIMITED, Welwyn Garden City, Herts.

Telephone : Welwyn Garden 3333

THE MAKERS OF *Robinson's 'Patent' Groats*, *Robinson's 'Patent' Barley* AND *Robrex***KEEN ROBINSON & CO. LTD.**

now introduce

Robsoup

**THE NEW BABY SOUP FOR
WEANING TIME**

Robsoup is a new
ready cooked bone
and vegetable soup
in powder form

Leaflets

Attractively written leaflets are being distributed to mothers and mothers-to-be.

**Medical and
Nursing Press**

Advertisements are appearing widely in all journals read by child specialists, general practitioners, nurses and midwives.

National Press

In time Robsoup will be advertised in the general press, but we prefer to inform professional people fully first.

**Direct Mail**

Mailing shots are being sent to doctors, nurses, midwives and others interested in the welfare of infants.

Point of Sale

A handsome display unit, beautifully printed in red, yellow and black, and designed to take two tins of Robsoup, is available on request to all chemists.

Our representative will be calling on you shortly. If you would like further details now, please write to Dept. MX35

ECONOMICAL
10 helpings for a five-month-old from a 1/6d. tin. There is no waste with Robsoup.

DIETETICALLY RIGHT
Robsoup is a useful supplement to milk mixtures and cereals at weaning time, and has the advantage of introducing vegetable flavours.

SAFE
As it is a dry powder there is no danger of germs of gastro-enteritis multiplying in the Robsoup remaining in the tin after it has been opened.

SIMPLE TO USE
Robsoup mixes instantly with (previously boiled) water at all temperatures to any consistency from a thin broth suitable for adding to bottle feeds to a thick, creamy soup which can be fed from cup and spoon.

Packaging and Terms

Robsoup is supplied in cases of 3 dozen, 13/9 a dozen less 2½% cash discount.

Consumer price, 1/6d. a tin.



Plan NOW
for bigger
SUNGLASS
Sales

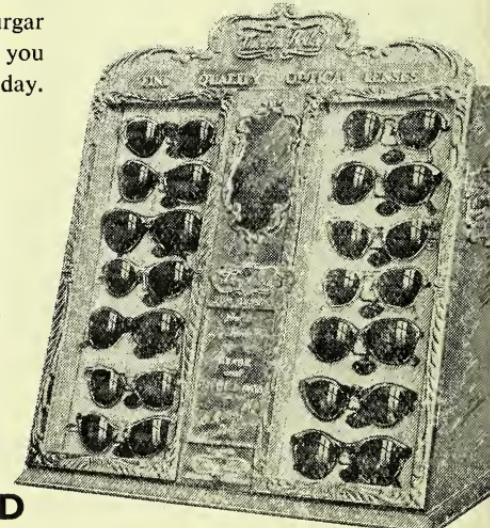
Wise buyers are planning now for earlier sunglass sales. Now is the time to order your stocks of the new 1952 Thurgar Bollé Sunglasses.

Again this year Thurgar Bollé offer you the most exclusive range in protective eyewear. Intriguing designs in colours that fascinate—at prices to suit all pockets.

If you have not had details of the Thurgar Bollé 1952 Salespur Scheme to bring you extra Sunglass business write for them today.

Thurgar Bollé
SUNGLASSES

Such comfort—such elegance



THURGAR BOLLÉ LTD

ORIENT HOUSE, WELLINGBOROUGH, NORTHANTS

Telephone: Wellingborough 2415

London Showrooms: 96 Regent Street, London, W.1.

Regency Cabinet—free in the 1952 Sales Scheme with free showcards and counterleaf.



*“Soothe sore throats in
a matter of seconds”*

Greatest advance in Home Perming

**NO
NEUTRALIZER
NEEDED**





HUGE NATIONAL PRESS ADVERTISING CAMPAIGN TO LAUNCH PROM

Here at last is a trouble-free perm. No neutralizer needed. Hair perms as it dries, on curlers. Wave is deeper and longer lasting.

Large, exciting advertisements will tell the dramatic story of Prom to your customers. Night and morning in the daily press. Week after week in the picture papers, and women's weeklies. Month after month in the women's journals. And this concentrated, continuous advertising will be . . .

RETAIL PRICE
8¹/₂4
 INCLUDING TAX

CONTENTS

4 oz. bottle waving lotion.
 72 end tissues.
 Instruction leaflet.

PROM *is a refill*

Can be used with any home perm curlers.

SUPPORTED BY A STRONG CINEMA ADVERTISING CAMPAIGN

Introducing a **New Line**
giving **Big Profit** ↓



WBRIDGE'S
RAPID ACTION 
ASPIRIN
SOLUBLE AND PALATABLE

PROFIT TO WHOLESALERS

12% - 20%

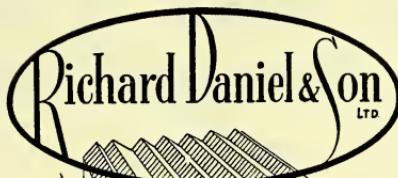
PROFIT TO RETAILERS

42% - 62%

Write for detailed Price List

W.T. OWBRIDGE LIMITED · OSBORNE STREET · HULL

FOR CHEMISTS



DRUGS

SUNDRIES

**PILLS • TABLETS
PROPRIETARIES**

HEAD OFFICE & WORKS: MANSFIELD ROAD, DERBY. Tel: 48266 (4 lines)

BRANCH WAREHOUSE: GROSVENOR ST., ASHTON under LYNE. Tel: 2816 (3 lines)

Creative printing
FOR OVER 70 YEARS



THOMAS WAIDE & SONS LIMITED
KIRKSTALL HILL LEEDS.5.

Generous Steady Intensive
Profit * Repeat * National
Margins Business Advertising
make

PHILLIPS' PRODUCTS

Firm Trade Favourites



'MILK OF MAGNESIA'

REGD.

'MIL-PAR'

REGD.

'MILK OF MAGNESIA' TABLETS

REGD.

PHILLIPS' DENTAL MAGNESIA TOOTHPASTE

REGD.

PHILLIPS' MAGNESIA BEAUTY CREAMS

'DANDERINE'

REGD.

'CALIFORNIA SYRUP OF FIGS'

REGD.



The Chas. H. Phillips Chemical Co., Ltd.
179, ACTON VALE, LONDON, W.3.

ideal for infants

and children

'Eskacillin' 50 is a palatable, easily administered, liquid penicillin for oral use. Its delicious flavour makes it the ideal oral penicillin for young patients and for those who dislike tablets or bitter mixtures.

'Eskacillin' 50 is available — on prescription only — in 2 fl. oz. bottles containing 800,000 I.U. crystalline potassium penicillin G.

Each medical teaspoonful contains 50,000 I.U. penicillin.

Retail Price - 13/6 per 2 fl. oz. bottle
Trade Price - 121/6 per dozen

Have you adequate stocks to meet the continuing demand for 'Eskacillin' 50?



'ESKACILLIN' 50

MENLEY & JAMES, LIMITED, COLDHARBOUR LANE, LONDON, S.E.5

for Smith Kline & French International Co., owner of the trade mark 'Eskacillin'

Please note our Telephone Number is now Brixton 7851

When You See These Silcot Advertisements—



**She's
INSISTENT!**

In fact, she's most
insistently so! She
insists on the fullest
comfort and safety.
That is why she im-
sists on Silcot, the
cotton-wool towel.

SILCOT

SANITARY TOWELS
Venusia Comfortable Soluble Convenient Towels
Convenient Safe



She's SURE!

She's sure of com-
fort with a downy
cotton-wool towel.
Sure of security with
the stitched loops.
She makes sure of
Silcot time after
time.

SILCOT

SANITARY TOWELS
Venusia Comfortable Soluble Convenient Towels
Convenient Safe



DISCERNING! *She's*

She's got one very
simple test and that
is to buy the best.
And to her, as to
many many others,
the best are Silcot
cotton-wool towels.

SILCOT

SANITARY TOWELS
Venusia Comfortable Soluble Convenient Towels
Convenient Safe

**remember that millions of women are
seeing them, too!**

Every time you see a Silcot advertisement in the women's magazines remember that millions of women all over the country are seeing them, too!

Above are shown the advertisements for the January, February, and March magazines. Showcards linking up with these advertisements are issued to our customers.

SILCOT

Sanitary Towels

MACDONALD & SON LTD., HOPE MILLS, POLLARD STREET, MANCHESTER 4



StaffAllenS

Founded 1833

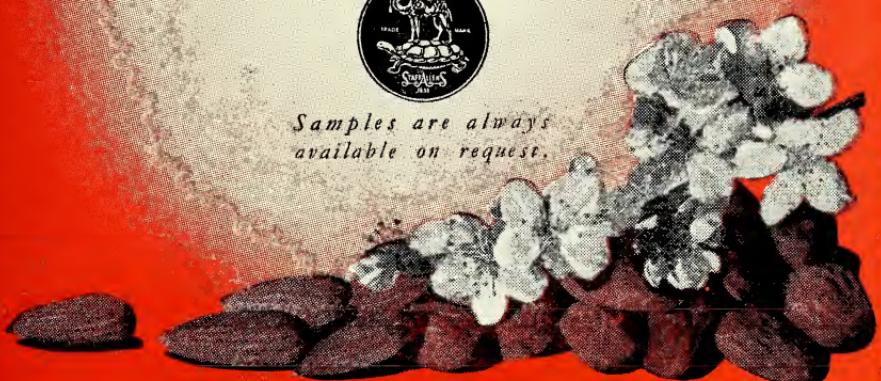
Cold-pressed

ALMOND OIL

This pure oil, expressed at our Wharf Road works without the use of heat, is quite the finest oil produced, and has long been a StaffAllenS speciality



*Samples are always
available on request.*



STAFFORD ALLEN & SONS LTD., Wharf Rd., London, N.I. CLERKENWELL 1000

TAS/AL.209

This Winter...



A-TISH-OO
A TISSUE

WILL
MEAN *Velvet*
HANDKERCHIEF TISSUES

Velvet

Handkerchief Tissues great new Publicity Campaign  will not only make the Velvet name more famous—but will extend still further the use of these fine products. Soon all your customers will be clamouring for Velvet.

NATION-WIDE PUBLICITY SCHEME INCLUDES

- ✿ Large Scale Advertising in National Newspapers
- ✿ Bus Advertising
- ✿ Dominant Poster Sites
- ✿ Tube Posters
- ✿ Full Velvet Dealer Supports and Aids

STOCK UP AND DISPLAY NOW

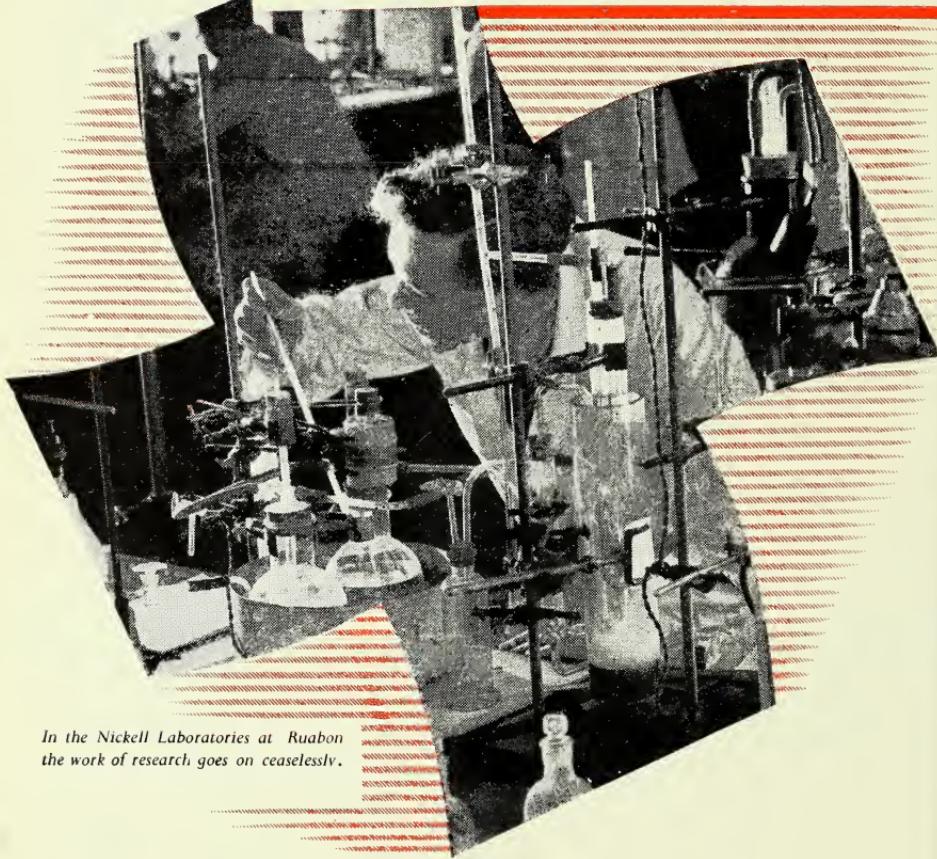


Velvet

HANDKERCHIEF TISSUES

VELVET CREPE PAPER CO. LTD., ALPERTON MILLS, ALPERTON, MIDDX.

GERMICIDES



*In the Nickell Laboratories at Ruabon
the work of research goes on ceaselessly.*

What are the qualities that determine the value and versatility of a germicide? First—and essential—high germicidal activity. Secondly—and equally essential—absence of harmful effects on healthy tissue. But that is only the bare outline for the specification. It is the

MONSANTO CHEMICALS LIMITED

for every purpose

subsidiary details that influence the choice of one product rather than another for a particular application. Colour: makes no difference to effectiveness, but it may make all the difference to a sale. Smell: sometimes that 'disinfectant' smell is desirable, sometimes not. Ease of formulation: some otherwise excellent products are remarkably intractable. Price: not per pound but in terms of germicidal efficiency. Availability of raw materials: always an open question. So Monsanto have taken account of all these factors and evolved a series of germicides. Each, in its own field, is outstanding. One comes as near to the ideal as contemporary knowledge allows. But the other Monsanto products have special merits which strongly recommend them for certain applications. The high RW value of Cresantol 3; the low price and ease of formulation of Cresantol 15; the compatibility of P.C.M.C. as an auxiliary germicide; these, and the consistent quality of all Monsanto products, make them invaluable in the manufacture of modern germicides.

If you wish to discuss any of these products in relation to a special problem, please write to the General Chemicals Department.

CHEMICALS FOR
EVERY INDUSTRY
throughout the world



PCM X

chloroxylenol B.P.—R.W.65

PCM C

chlorocresol B.P.—R.W.22

CRESANTOL 3

benzyl cresol—R.W.105

CRESANTOL 15

chlorinated xylenols—R.W.75

ALLINGTON HOUSE • LONDON • S.W.1



PARASITES ON POULTRY



POULTRY FLEA



POULTRY LOUSE

'Lorexane' Dusting Powder contains pure gamma benzene hexachloride—a powerful, but non-irritant insecticide.

Particularly effective against the insect pests which worry animals and birds, 'Lorexane' can be recommended with confidence to poultry-keepers, for the swift eradication of lice, fleas, etc.—parasites, which, unchecked, can soon impair development of the birds, reduce egg production and even cause death.



Equally effective
against parasites
on dogs and
other domestic
animals.

In convenient sprinkler-top containers of
100 grammes—Retail Price 2/-. Also in
packings of 500 grammes and 3 kilos.

From your wholesaler or, in case of difficulty, apply to your nearest I.C.I. Sales Office:—London, Bristol, Birmingham, Manchester, Glasgow, Edinburgh, Belfast and Dublin.

'LOREXANE' TRADE MARK DUSTING POWDER

IMPERIAL CHEMICAL (PHARMACEUTICALS) LTD

A subsidiary company of Imperial Chemical Industries Ltd.

WILMSLOW

MANCHESTER



Ph. 93/2

"SANATOGEN" TONIC WINE



"SANATOGEN" Tonic Wine is an admirable restorative for it combines the "pick-me-up" qualities of a rich, full-bodied wine with the active tonic properties of a rich, "SANATOGEN" Nerve Tonic. The word "SANATOGEN" is a registered Trade Mark.

8/-
PER BOTT.
4/6
HALF BOTT.

46 MILLION APPEARANCES

During January & February this advertisement will appear 46,000,000 times in National newspapers, Evenings, Sunday papers, Periodicals and Women's Magazines besides 550 local papers. Cash in on this enormous sales drive and stock up with
"SANATOGEN" TONIC WINE

*See you
at the
Harrogate
Fair*



See our new lines at the
**HARROGATE TOY and
FANCY GOODS FAIR**
The Cairn Hydro, Room C.356
also

Messrs: F. & H. Neumark
The Old Swan Hotel, Room H.356

★ Look out for the new sensational
Cotswold Doll Pens.

Cotswold

The Cotswold Distributing Co. Ltd
92 Walworth Road, London, S.E.17. RODney 2745

NATIONAL FORMULARY 1949

**PASTILLES
and LOZENGES are
always in ample
supply from**

**ROBERT GIBSON
& SONS LIMITED**

MANCHESTER & LONDON

Manufacturers of
“MECCA” COUGH PASTILLES
and
GIBSON’S CHOCOLATE WORM CAKES



We invite your
enquiries and orders for
**DRUGS, GALENICALS,
TABLETS, OINTMENTS,
CITRATES, BROMIDES,
HYPODERMIC NEEDLES,
CLINICAL THERMOMETERS,
SURGICAL PLASTERS,
SURGICAL DRESSINGS,
HOT WATER BOTTLES,
CHEMISTS' SUNDRIES.**
at competitive prices

BIOREX
LABORATORIES LTD.
WHOLESALE AND MANUFACTURING CHEMISTS
51 EXMOUTH STREET, LONDON, E.C.1
Telephone: TERminus 9494 and 1431

*Post orders executed promptly
Daily delivery service in the
Greater London Area*

INTRODUCING *LanOlive*

THE WONDER SKIN LOTION

made by the

**COOLTAN
PEOPLE**



NOW, at just the right time, comes Lanolive, the new type *Skin Lotion* containing Super Lanolin, Pure Olive Oil and Sensational 'G.11' (Hexachlorophene) the U.S.A. Anti-Bacteria discovery . . .

14 TO THE DOZEN!

... until February 16th — whether Direct or through your Wholesaler

powerful, heavy and unusual Advertising (*a real weighty campaign*) in the National Dailies, Sundays and periodicals will create quick sales. Opening orders from Wholesale or Retail Trade will be 'Sale-Guaranteed'. Retail Trade Price 16/8d. per dozen. Price to Public, including 33 $\frac{1}{3}$ % tax, 2/6d. per 2 $\frac{1}{2}$ oz. bottle.

Athleen Court (Eng.) Ltd.

Science Distributors : Sun Island Chemicals Ltd., The Laboratories, Hampton, Middx. Phone : Molesey 3721

READY!

... this * impelling, attractive Showcard in Colour.



Fruit drinks that Diabetics can enjoy

THESE delicious Fruit Drinks are specially prepared without added sugar. Rose's Diabetic Lime Juice costs 3/- a bottle; the Fruit Squashes — orange or lemon — are 3/- a bottle.

ROSE'S *Diabetic* FRUIT DRINKS

JANET'S SOLVENT

*The efficient treatment for
BLACKHEADS*

BONUS OFFER

To link up with our advertising campaign and in return for window or counter display all orders received during January and February, 1952 will be executed on bonus terms as follows :—

Retail 2/6 - Trade 12/- per dozen (100% P.T.) - 14 to dozen on complete dozens.

Retail 4/6 - Trade 21/6 per dozen (100% P.T.) - 7 to half dozen.

Purchase Tax on bonus chargeable on invoice. Any quantity carriage paid.

Order NOW and take advantage of these very generous terms.

JANET'S SOLVENT, packed in display boxes, sells on sight.

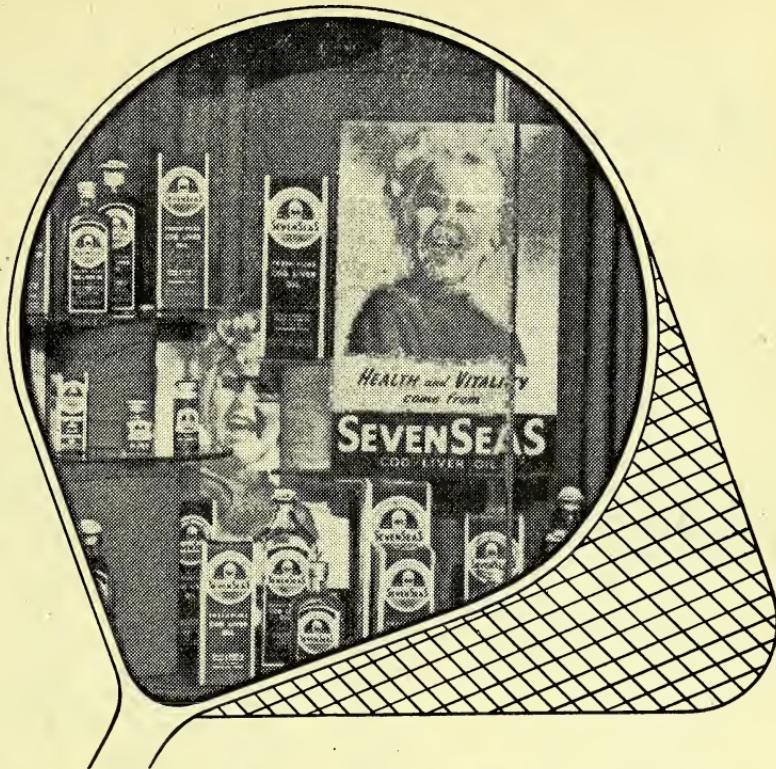
S. C. STANNARD, LTD
6/7 ST. DUNSTAN'S LANE, LONDON, E.C.3

NET FOR VENTILATION You need no stock

Lastonet surgical stockings are sold for you through NATIONAL & MEDICAL JOURNAL ADVERTISING. All you need is a supply of measurement forms which we will gladly send to you together with display material and particulars of trade discount. Write today!



LASTONET PRODUCTS LTD. Carn Brea, Redruth, Cornwall



This brings them in!

No women—and few men, for that matter—can resist the sturdy, laughing youngster on this striking SevenSeaS showcard.

Let him work for *you*: give him a prominent place in your window, backed by a strong display of SevenSeaS products, and watch how this will bring customers into your shop and turn their interest into sales.

SEVENSEAS
PURE COD LIVER OIL

British Cod Liver Oils (Hull & Grimsby) Limited, St. Andrew's Dock, Hull.

Announcing

THE NEW

MELLIN'S MALTO-DEXTRIN FOOD

FOR INFANTS, INVALIDS AND CONVALESCENTS

Medical experts agree that it is a particularly nourishing and easily digested food for infants, invalids and convalescents.

You can start selling this fine new product straight away for there's no need to clear your old stocks of Mellin's first. Return them to your wholesaler, and they will be credited against your new order.

In its attractive and most recognisable new pack it will be a quick-moving, easy-seller, retailing at 3/6 a bottle.

ORDER NOW...

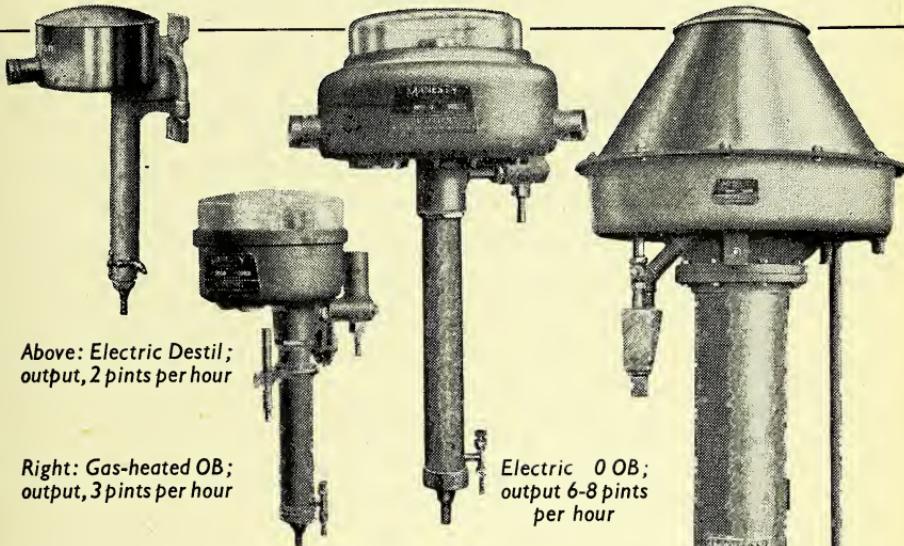
AND REPLACE OLD STOCKS FREE WITH
THE NEW

**MELLIN'S MALTO-DEXTRIN
FOOD**



ONLY A **STILL** WILL GIVE YOU DISTILLED WATER

If you want genuine distilled water, there is only one way to get it —by using a still. All models have wall bracket fixing, and are automatic in operation. It would be well worth while to send for our illustrated lists. Manesty Stills give distilled water of constant purity at a very low cost.



Above: Electric Destil;
output, 2 pints per hour

Right: Gas-heated OB;
output, 3 pints per hour

Electric 0 OB;
output 6-8 pints
per hour

Steam-heated
No. 4 B; out-
put 50 gallons
per hour

MANESTY
MEANS
PRECISION-BUILT

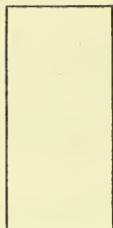
MANESTY MACHINES LIMITED

DEPT. 5

SPEKE

LIVERPOOL 19

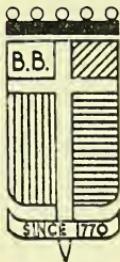
Telephone: HUNTS CROSS 1972 Telegrams: MANESTY, LIVERPOOL
TABLET MACHINES • COATING PANS • GRANULATORS • MIXERS • PUNCHES AND DIES



There is an empty house

at 95 Farringdon Street, where for many generations, and through the thick of two total wars Barclays have served their chemist friends.

It is a good house, in the hub of the City of London, but is no longer suited to the present needs of our business.



but... there is bustle and activity at 34/36 Beech Street, where Barclays are now operating and from which address we shall be able to give your orders and queries the efficient attention to which they are entitled, *including INVOICES WITH GOODS.*

More than ever you will be sure of quality, prompt service and modern packaging when you buy

- DRUGS
- ETHICALS
- TOILETS
- PACKED GOODS
- SUNDRIES

Buy
Barclay

and now for

Glycerine

You probably know that Thomas Hedley & Co., Limited is one of the largest producers of glycerine in this country — but do you know about the very prompt delivery service we are able to give you ? We are fortunate in having three factories in different parts of the United Kingdom all engaged in glycerine production. It is, in fact, because we have these three well-placed depots that we are able to deliver so quickly to any part of the country.

If you wish to take advantage of our organisation, we invite you to contact our sole agents — **Frederick Boehm Ltd., 19, Bentinck St., London, W.1** (Tel. : Welbeck 7933). Although glycerine is still subject to control, they will be pleased to discuss any details and supply you with the necessary application forms for permits.

THOMAS HEDLEY

& Co. Limited: Newcastle-on-Tyne

MAKERS OF TIDE, DREFT, OXYDOL, FAIRY SOAP AND OTHER FAMOUS PRODUCTS



Chemically pure, pale straw and industrial white

Be wise - stock Wisdom!
IT'S ADVERTISED IN -

RADIO TIMES
The Nation's Shop Window

Be wise - buy **Wisdom** THE CORRECT-SHAPE TOOTHBRUSH
MADE BY ADDIS LTD OF HERTFORD

BECAUSE... there's only one toothbrush with the correct-shape handle and that's Wisdom. That handle is specially designed to help you get into every crevice, even the hardest to reach. No wonder more people buy Wisdom than any other toothbrush. Nylon (Round-ended), or Natural Bristle.

The powerful advertising campaigns for Wisdom Toothbrushes are creating a tremendous demand from the 8,109,663 readers of Radio Times

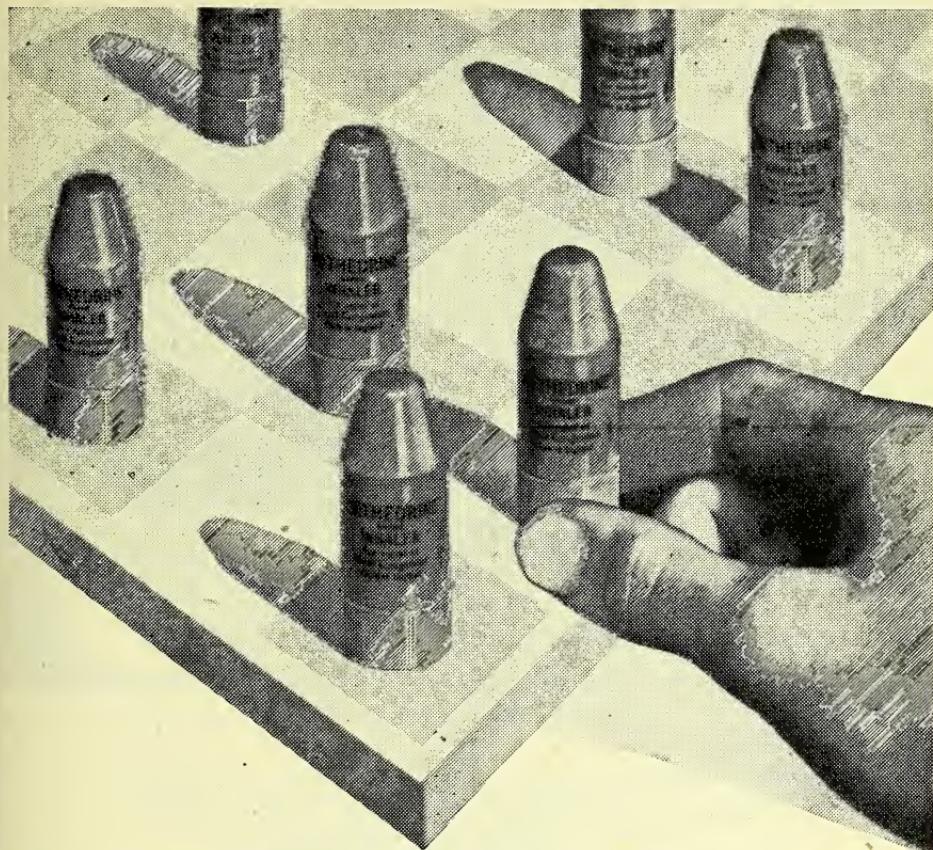
Stock and display goods advertised in the

The regular advertising of Wisdom Toothbrushes in "RADIO TIMES" will inevitably boost your sales to even higher limits.

Make sure you are adequately stocked to meet the ever-increasing enquiries for products advertised regularly in "RADIO TIMES", The Nation's Shop Window.

RADIO TIMES

Member of the Audit Bureau of Circulations



A prudent move for profitable trade

Review your stocks of the 'Methedrine' Inhaler. Order now to meet the seasonal demand. By so doing you will make a prudent move in winning profitable trade. Available in three gay colours, the 'Methedrine' Inhaler will be sent you smartly cartoned in display-outers holding 24. Also at your service to stimulate sales are a striking display-stand and a showcard.

BONUS TERMS: one Inhaler or two refills free with every 24 you order.

RETAIL PRICE: 2/- plus 6d. purchase tax.

The 'METHEDRINE' INHALER

BRAND



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON



ANTISEPTIC THROAT · GLYCERINE OF THYMOL
CATARRH · MENTHOL & EUCALYPTUS

THOMAS KERFOOT & CO. LTD., VALE OF BARDSTON, LANCASHIRE.
and Bardsley House, London, N.1.

P11

What's in a name?

Evan Williams

Quite a lot . . .
for you!

The reputation behind this name guarantees a range of consistently selling lines which have the confidence of your customers and ensure a good margin of profit for you. **Show them and you'll sell them!**

SHAMPOOS · TONING PACKS · BRILLANTINES · WAVE SET

EVAN WILLIAMS CO. LTD., Sales Dept. AINTREE ROAD, PERIVALE, MIDDX.



Just to remind you

Parents who buy vitamin supplements for their children are influenced by one or more of several factors—name, quality, declared vitamin content, flavour, or price—RADIO-MALT satisfies on all points. It is sound policy to keep RADIO-MALT prominently displayed.

‘RADIO-MALT’

for radiant health

1 lb. jar, Trade 2/5½d. Retail 3/6.
2 lb. jar, Trade 4/2. Retail 6/-.

Remember also

‘MULTIVITE’

with its new display outer containing six bottles.
Bottle of 50 pellets, Trade 2/4.
Retail 3/6.

‘FERBELAN’

the new B.D.H. tonic for children.
Bottle of 4 fl. oz., Trade 2/6.
Retail 3/9.

Quantity terms on application

THE BRITISH DRUG HOUSES LTD. LONDON N.I

JKL

Agar Agar
Aloes
Cantharides
Cascara Sagrada
Cochineal
Condurango Bark
Ergot of Rye
Grindelia Herb
Liquorice
Lobelia Herb
Papain
Peppermint Oil
Sabadilla Seed
Sarsaparilla
Wild Cherry Bark
Witch Hazel Leaves
and all other Botanicals,
Gums, Waxes, Essential Oils
and Spices

JOHN KELLYS (LONDON) LTD.
Graham House, 24 OLD BROAD STREET, E.C.2
Telephone: London Wall 4882, 6585, 6586
Telegrams: "Ergotine, Stock, London"
Branches in New York and Hamburg

Ammonium Carbonate
Chalk—Precipitated and Prepared
Cresylic Acid
Coal Tar Disinfectants
Emulsifiers
Magnesium Carbonate (Pond.)
Synthetic Detergents
Naphthaline
Toluene, Xylene
Zinc Oxide

DUNN BROTHERS'
SUCCRS. LTD.
1 BOOTH STREET, MANCHESTER
Established 75 years

GALIC ACID PYROGALIC ACID

(RESUBLIMED, PURE CRYSTAL AND TECHNICAL)

AND DERIVATIVES

WHOLESALE AND EXPORT ONLY

J. L. ROSE, LIMITED, ABBEY ROAD, BARKING, ESSEX

TANNIC ACID AND DERIVATIVES

(Bulk
Supplies
Only)

THE BRITISH DYEWOOD COMPANY LIMITED
19 St. VINCENT PLACE, GLASGOW, C.1

CHLOROPHYLL

**WATER SOLUBLE FOR MEDICINAL USE IN PASTE
OR POWDER FORM—Non-toxic**

for the manufacture of Anti-deodorant Tablets, Ointments
for the treatment of Wounds, Ulcers, Burns, etc., and
for Dental purposes.

We guarantee the correct strengths of Chlorophyllin in the following:—
8% Paste - - - - 12% Paste - - - - 16% Powder

Oil and Spirit soluble any colour strength please apply for samples
and further information

BULK SUPPLIES ONLY for manufacturers

Sole Distributor:— **FREDK BOEHM, LTD.** 19 BENTINCK STREET, LONDON, W.I.
Produced by
BRITISH CHLOROPHYLL CO., LTD., NAVENBY, LINCS.
Phone: WELBECK 7933 Grams: BISSULA, WESDO, LONDON

AN ALL COTTON WOOL PRODUCT OF REPUTE

Consolux
(Registered) Patent No. 410702

**SUPERFINE QUALITY
ALL WOOL SANITARY TOWELS**

**LOOED ENDS
NON-ABSORBENT BACK
WHOLESALE ONLY**

ROBERT BAILEY & SON, LTD.
SURGICAL DRESSINGS MANUFACTURERS
SART STREET, GREAT MOOR, STOCKPORT
STEPPING HILL 3006/7 Grams: "UNDISPUTED" STOCKPORT



N.V. SOCIETEIT VOOR
CHEMISCHE INDUSTRIE

"KATWIJK"

KATWIJK - AAN - ZEE
HOLLAND

Producers of:

CAFFEINE AND SALTS

THEOBROMINE AND SALTS

THEOPHYLLINE AND SALTS

London Agents:

GREYER, BRECHEISEN & CO., Ltd.
BUSH LANE HOUSE, CANNON STREET,
LONDON, E.C.4. Telephone: MAN 9030

Bombay Agent:
STANDARD DRUG & CHEMICAL CO.,
174 HORNBYS ROAD, FORT, BOMBAY

Calcutta Agent:
H. D. NAG, 36 Beniatala Lane, CALCUTTA

Madras Agent:
**A THE DOLLAR CO., 337 Thambu Chetty St.,
G.T. MADRAS**

GALE'S NUTRITIOUS TONIC**MORELIX**

(Regd.)

ESPECIALLY SUITABLE FOR
CHILDREN
AND DURING CONVALESCENCE*Contains Liquid Malt,
Vitamins A & D, Hypophosphites
and Virginian Prune.*

DREADNOUGHT



BRAND

GALE, BAISS & CO. LTD.,
274/276, ILDERTON ROAD S.E.15

"*Softer than Silk*"

ENESS
SANITARY TOWELS

MORISONS & RALPH, BARRHEAD, SCOTLAND

**The Silky Soft Absorbent
Tissue that is preferred****Vanity**
HANKIE TISSUES
RETAILS FROM 1/4½d.

Tissues have come to stay—it's just a case of selling the **BEST** to make and keep customers. **VANITY** are produced by **THE PAPER SPECIALISTS** — packed attractively and come to you in display cartons worthy of your windows and counters.

POCKET PACK for Travel, School, etc.
(24 large size White Tissues) 5d.

BOUDOIR CARTONS (100 in White or
assorted Pastel colours) or Cellophane Wrapped
100 and 180; assorted shades if required.

FREEDER BROTHERS PAPER MILLS
BRIMSDOWN, ENFIELD, MIDDLESEX

Telephone : **Howard 1847 (3 lines)**
Telegrams : **Sylkocrepe, Enfield, Middlesex**

January 12, 1952

THE CHEMIST AND DRUGGIST
SUPPLEMENT

DOCTORS ARE PRESCRIBING

Rx *Cardophylin*
TRADE MARK

(BRAND OF THEOPHYLLINE-ETHYLENEDIAMINE)

VASODILATOR • RESPIRATORY STIMULANT • DIURETIC

Cardophylin is available in tablets, ampoules and suppositories.

Cardophylin is the registered trade mark of the manufacturers Whiffen & Sons Ltd.

Literature is available on request to the distributors:—

BENGER LABORATORIES LTD., HOLMES CHAPEL, CHESHIRE

GUM TRAGACANTH

GUM KARAYA

WHOLE AND POWDERED

M. HAMBURGER & SONS

DIRECT IMPORTERS

Plantation House

MINCING LANE, LONDON, C.3

Telephone: Mansion House 4405 (3 lines)

QUATERNARY AMMONIUM COMPOUNDS

Now available commercially
LEDA CHEMICALS LTD., are pleased to announce that they are now manufacturing the following quaternary ammonium compounds in commercial quantities:—

Lauryl Pyridinium Chloride • Lauryl Pyridinium Chloride (broad cut) • Cetyl Pyridinium Chloride
Lauryl Dimethyl Benzyl Ammonium Chloride
Cetyl Dimethyl Benzyl Ammonium Chloride
Stearyl Dimethyl Benzyl Ammonium Chloride

Mixed Alkyl Dimethyl Benzyl Ammonium Chloride (Benzalkonium Chl.ride) also available

This particular quaternary is being distributed by Bayer Products Ltd., Africa House, Kingsway, London, W.C.2., to whom enquiries for Benzalkonium Chloride should be addressed.

LEDA CHEMICALS LTD., Wharf Rd., Ponders End, Middx
Tel. No.: HOWard 2231 Tele. Address: Ledakem, London

WE WANT



MILLAMALT

*Sole Manufacturers: JEFFREYS,
MILLER & CO. LTD., Leyland Mills,
Wigan. (London Dept. 19 Brookside Rd. N.19) BECAUSE OF THE BUTTERSCOTCH FLAVOUR*

IN BULK-LOOSE TO WHOLESALERS AND PACKERS
GENERAL TABLETING SERVICE

Enquiries invited

STANDARD SACCHARIN TABLETS, Etc.
THE DALES TABLET MAKERS LTD. Steeton, Nr. Keighley

Phone: STEETON 3222

**WELL-KNOWN FIRM OF
TOILET ROLL AND
INTERLEAVED PACKET
MANUFACTURERS**

with large modern plant, will accept
orders from Established Firms, at
very keen prices for

**MEDICATED
TOILET ROLLS**

WEIGHT FROM 6 OZ TO 12 OZ

Highly glazed bands can be
printed to customers own
design at no extra charge.

LIPTON'S PAPER MILLS LTD.

Devonshire Works, Dukes Avenue,
Chiswick, London, W.4

Telephone: CHIswick 3600 (8 lines)
(Established 1898)



'WEBSTER'S'

STAINLESS STEELWARE

Specialists in modern equipment for manufacturers, i.e., Funnels, Buckets, Jugs, Mixing Containers, Measures, Percolators, Boggies, etc., etc. Suppliers of Stainless Steel utensils, at prices which enable the user to employ them in place of other metals as an economical proposition.

The use of Stainless Steel equipment, designed on modern principles, enables overhead costs to be reduced and makes for more convenient and better working conditions.



ISAAC WEBSTER & SONS, LTD.

ABBEY WORKS, KIRKSTALL, LEEDS

Phone : 51580 Leeds. Grams : Isaac Webster, Kirkstall

**CHEMISTS' LABELS
IN 14-18 DAYS**



Perfectly printed labels on top grade gummed paper at unusually keen prices. Delivery quoted 14-18 days, but often even quicker. Samples and prices by return.

TRENDLELLS
100 LINTRATHEN ST, DUNDEE

CANISTERS LTD

invite inquiries for

**SPIRALLY WOUND
CARDBOARD TUBES**
up to $\frac{1}{2}$ " wall

**POSTAL TUBES AND
TOILET ROLL CENTRES**
also **COMPOSITE DRUMS**

FIR ST. WORKS

Heywood, Nr. Manchester



GALENICALS, TABLETS, PACKED GOODS

and all supplies for Health Service and Counter Trade

Our own vans cover the Midlands

E. H. BUTLER & SON LTD
THORNTON LANE AND
HUMBERSTONE GATE, LEICESTER

Phone :
LEICESTER 5671

Telegrams :
AMPHORA LEICESTER

SUPAVITE now also in



FAMILY PACK

RETAILS - 16/3 for
120 Capsules

Free of Purchase Tax

(4 TIMES THE 5/- SIZE)

TRADE PRICE 141/4d. a dozen.

Extra 2½% on one dozen.

Extra 5% on two dozen.

Supavite is guaranteed to contain not less than the stated quantities of Vitamins and Minerals. It provides a full daily ration of Vitamins A, B₁, B₂, C, D, E and Nicotinamide together with Iron, Calcium and Phosphorus, the minerals without which the fullest nutritional benefits cannot be obtained.

FORMULA

Each AMBER Capsule contains:

Vitamin A	6,000 I.U.
Vitamin D	1,000 I.U.
Vitamin E	1 mg. plus one minim wheat germ oil.

Each BLACK Capsule contains:

Vitamin B ₁	1 mg.
Vitamin B ₂ (Riboflavin)	1 mg.
Vitamin C	25 mg.
Nicotinamide	10 mg.
Iron (Ferrous)	17 mg.
Calcium	39 mg.
Phosphorus	30 mg.

STOCK NOW TO MEET DEMAND

Angier's SUPAVITE

REGD.

Standard size retails at 5/- for 15 days' supply.

THE ANGIER CHEMICAL CO., LTD., LABORATORIES AT SOUTH RUISLIP, MIDDLESEX.

Sole Distributors:— FASSETT & JOHNSON LTD., 86 CLERKENWELL ROAD, E.C.1.

EDGWARE

SURGICAL SCISSORS

Specialists in the manufacture of Fine Quality SURGICAL SCISSORS in Stainless Steel

- ★ DRESSING SCISSORS
- ★ DISSECTING SCISSORS
- ★ MAYO'S SCISSORS

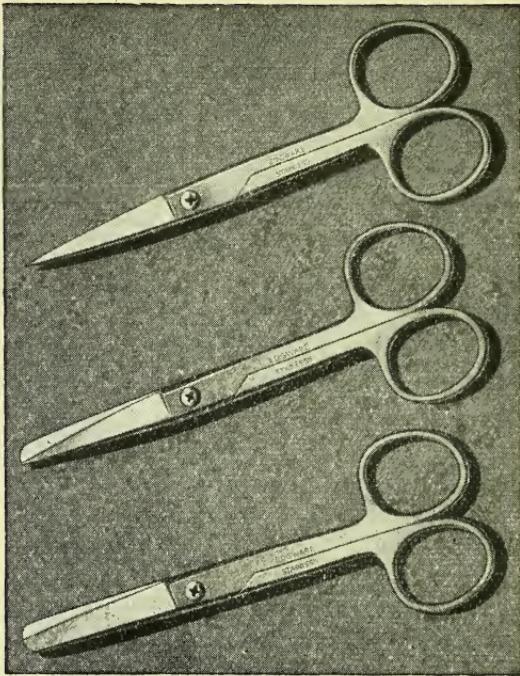
Finest quality Sheffield Steel, expert craftsmen latest scientific methods of heat treatment and tempering guarantee uniform high standard of quality

• Wholesale enquiries invited.

THE EDGWARE SURGICAL SCISSORS CO.,
HUMBER ROAD, LONDON, N.W.2

Telephone: GLADstone 4902 & 3454

Cables: Hanedge, London



PERSONAL WEIGHING MACHINE

NO LOOSE WEIGHTS

Capacity 24 stone X 1 oz.
divisions.

Hardened steel knife edges
and bearings.

Complies with local Weights
and Measures regulations.

Finished in white enamel.

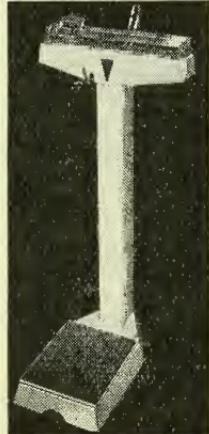
Also available

COMBINED BABY & TODDLER WEIGHER

Capacity 60 lbs. X $\frac{1}{2}$ oz.
divisions. No loose weights.
Extra large Baby Basket.
Hygienic and easy to clean

Finished in white enamel

Please send for illustrated
leaflet.



HERBERT & SONS LTD

38 CHARTERHOUSE STREET, SMITHFIELD, E.C.1

Telephone: CLErkenwell 2812 (6 lines)

THE

FLUID

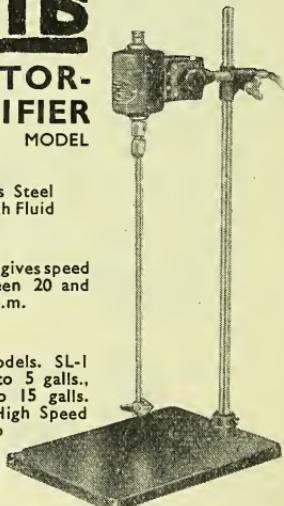
AGITATOR-
EMULSIFIER
LABORATORY MODEL
SL-A

All Stainless Steel
Contact with Fluid

Built-in Control gives speed
variation between 20 and
2000 r.p.m.

Also larger models. SL-1
for vessels up to 5 galls.,
and SL-2, 10 to 15 galls.
capacity. S.C. High Speed
Agitators for up
to 500 galls.

IMMEDIATE
DELIVERY



FLUID EQUIPMENT CO. LTD.
(Dept. S.D.) 83 Seafield Road, London, N.11

Phone: ENT 2565

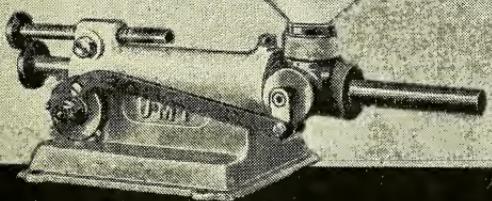
Use U·M·P COLLAPSIBLE METAL TUBES

and fill them by the

U·M·P COLLAPSIBLE TUBE FILLING UNIT

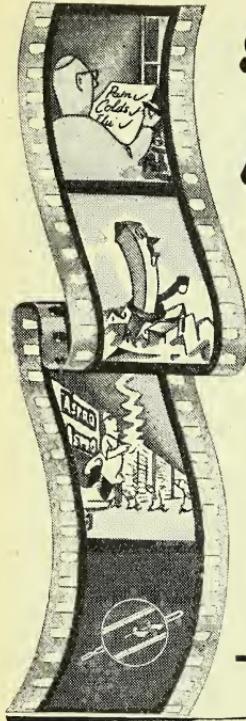
This unit consists of Tube Filling Machine, Tube Closing Machine and Tube Crimping Machine. Please write for particulars and descriptive leaflet.

*We are also moulders
of PLASTICS to the Trade
by injection and
compression methods*



THE SIGN OF SERVICE
AND CO-OPERATION

UNIVERSAL METAL PRODUCTS LTD.
SALFORD 6 LANCS. Telephone: PENDLETON 1631-2-3
LONDON OFFICE: ARGYLE HOUSE, 29/31 EUSTON ROAD, N.W.1.



SHOWING IN 2000 CINEMAS FLU-ING SQUAD THE NEW 'ASPRO' COLOUR CARTOON FILM

"FLU-ING SQUAD" will be shown all over the country this winter. All the resources of modern colour-cartoon technique have been used in this film to combine good entertainment with a clear, powerful, selling message. "FLU-ING SQUAD" really hits the imagination of the public—it's talked about and remembered—and all this gives a big stimulus to your 'ASPRO' sales.

ASPRO
REG. TRADE MARK

**ASPRO FILMS AND FILMLETS ARE SHOWING
TO OVER 9,000,000 PEOPLE A WEEK!
THESE FILMS MAKE SALES FOR YOU
Display 'ASPRO' NOW
—AND GET THE MAXIMUM RESULTS!**

Made by ASPRO LIMITED, Slough, Bucks

AMMONIATED QUININE, 1 oz., 2 oz.

CAMPHORATED OIL, 2 oz., 4 oz.

CHEMICAL FOOD, 4 oz., 8 oz.

GEE'S LINCTUS, 4 oz.

FRIAR'S BALSAM, 1 oz., 2 oz.

GLYCERINE LEMON and HONEY, 4 oz.

OWN NAME & ADDRESS

TAX FREE LABELLING

COMPETITIVE PRICES

QUICK DELIVERY

MINIMUM QUANTITY

3 DOZEN

GLYCERINE OF THYMOL, 4 oz., 8 oz.

LIQUID PARAFFIN 8 oz., 16 oz.

OLIVE OIL, 4 oz.

SURGICAL SPIRIT, 4 oz., 8 oz.

Prices and Sample Labels from :

C. J. HEWLETT & SON LTD.

Manufacturing Chemists

35-43 CHARLOTTE ROAD, LONDON, E.C.2

Also at 216 ORR STREET, GLASGOW, S.E.

When women believe - they BUY!

Every day letters like these arrive, proving the ever-rising appeal of BRISTOW'S LANOLIN SHAMPOO. Bouquets for Bristow's mean sales for you. Show it, recommend it—and be ready for the constant demand.

LIVERPOOL

Dear Sirs,
I feel I must write and let you know how pleased I am with the results of I am Lanolin Shampoo. It really does all you claim for it. My little girl has a head of lovely natural curls, but it never looked lovelier than lately after one tube of your Shampoo—the shine and the silkiness are constantly remarked upon.

Yours faithfully,
(Sgd.) MRS. H. B.

WIGAN

Dear Sirs
I am writing to compliment you on producing such a wonderful shampoo as Bristow's Lanolin Shampoo. It really lives up to what the advertisements claim to be, and I find that the Lanolin ingredient is especially good in correcting dryness.

I have found your shampoo exceptionally good before doing Home Permanents, as the hair is left silky and supple, just right to take and hold a perm. (Sgd.) MISS J. H.

NOTTINGHAM

Dear Sirs,
I would like to tell you how much I enjoy using Bristow's Lanolin Hair Shampoo. My hair was dry and brittle but your shampoo has improved it greatly. My daughter uses it too—and is delighted with the results. We both recommend Bristow's Lanolin Shampoo to our friends, having great confidence in it ourselves.

Yours faithfully,
(Sgd.) MRS. D. R.



	Retail Price	Standard Wholesale Terms per dozen	Quantity Terms				Purchase Tax per dozen	
			Minimum Direct		Best			
			Minimum Pack (doz.)	Price Per dozen	Quantity in dozens	Price per dozen		
HANDY TUBE - -	1/3d.	8/10d.	3	8/5d.	6	8/1d.	2/11 1/2d.	
STANDARD TUBE - -	2/-	14/2d.	3	13/6d.	6	12/9d.	4/8 1/2d.	
SALON JAR (8 oz.) - -	—	47/3d.	8	(not for re-sale)		—	15/4d.	

An order for BRISTOW'S LANOLIN SHAMPOO may be included with other products to make up the value of a Display Parcel which provides extra profit on turnover. Our representative will be pleased to provide details.



I want a
first-aid dressing
please!

**Do YOUR customers get
the dressing that's most
efficient and full value?**

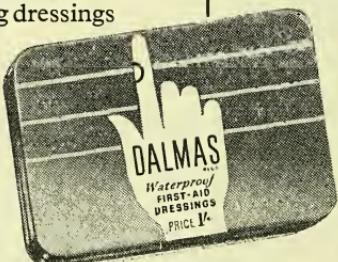
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THE WHITE HAND**



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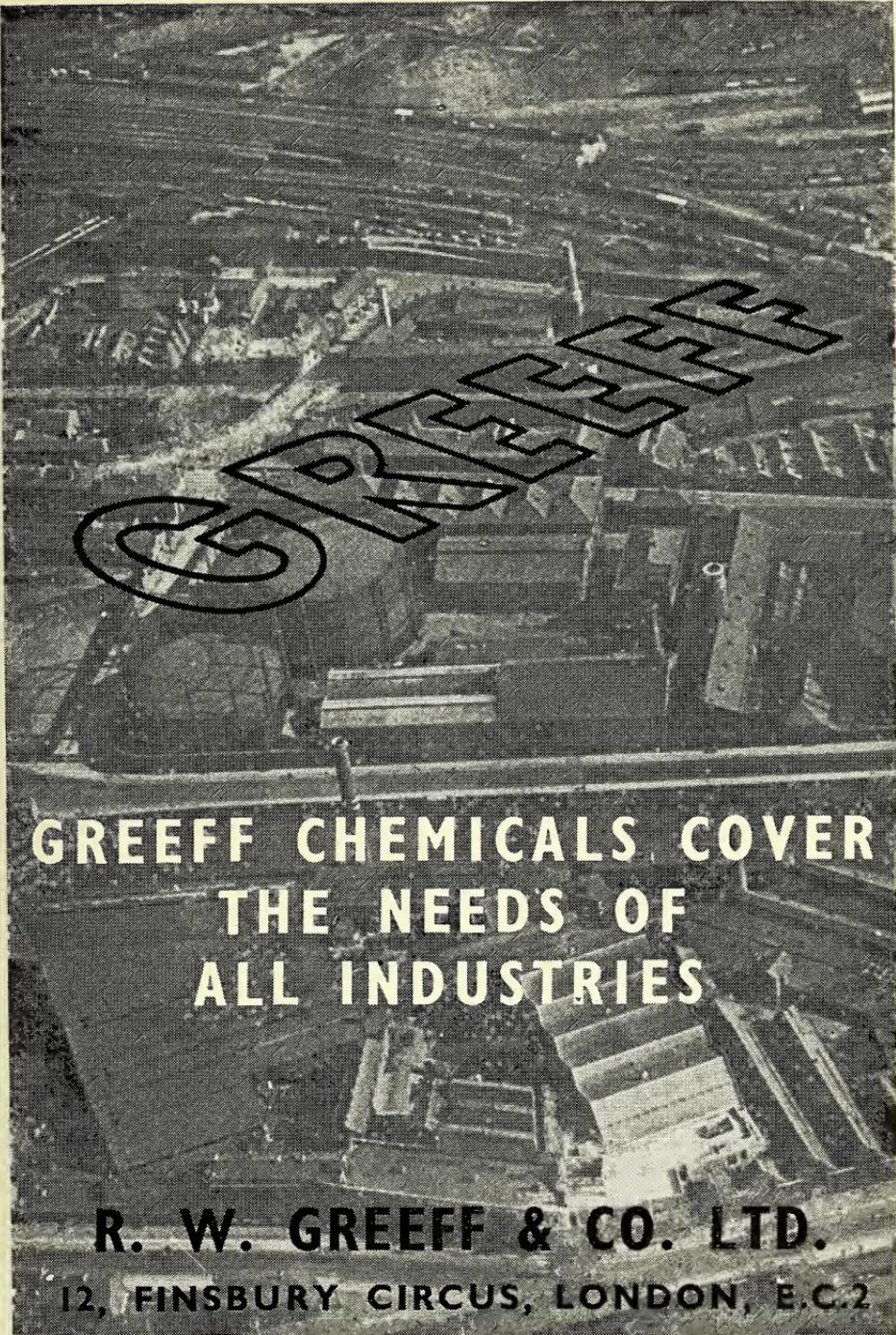
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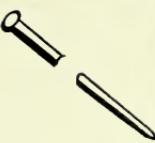
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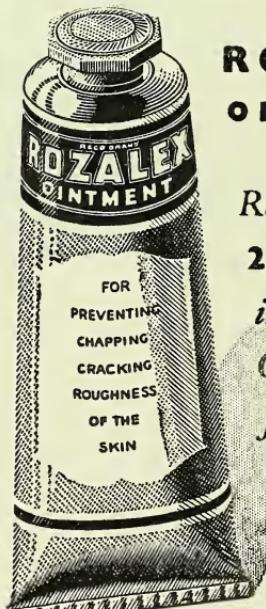
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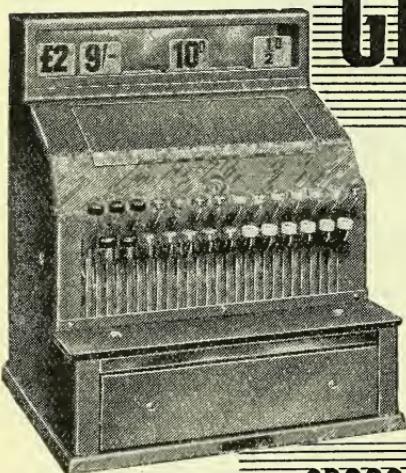
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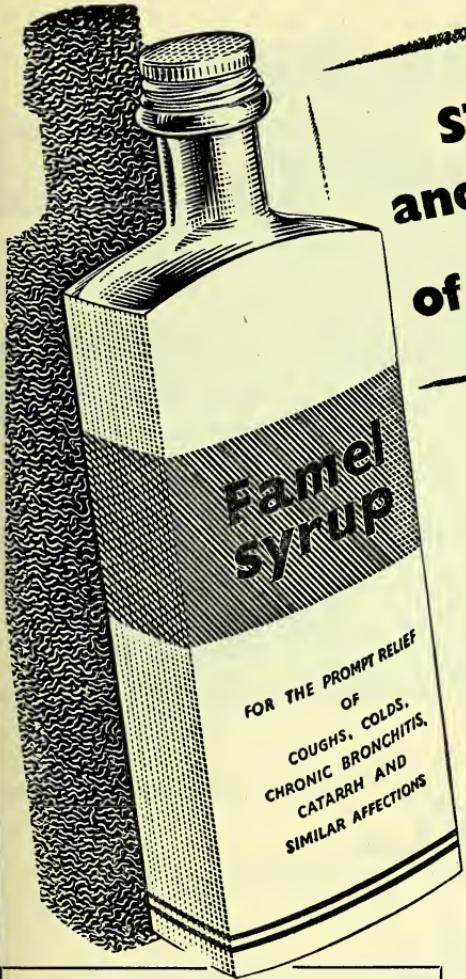
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Usual generous quantity discounts

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including Purchase Tax. Pastilles 1/10½
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NOW is the time to sell more ZYTOCIN

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63 TABLETS

(Full 3 weeks' supply)

RETAIL 5/- per tin

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RETAIL 1/11 per pack

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this
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IN POCKET SIZE TINS, MEDIUM & LARGE

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USUAL WHOLESALE SUPPLIER

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Flexoplast Dressing is
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Size 1 1/2" x 1 yard and
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Per Bottle

Winter time is 'flu' time—the time for Fennings' Fever Mixture. Hundreds of homes rely on Fever Mixture to ward off 'flu'. Soon the demand will be at its highest. *Don't wait till then to order your supplies—keep ahead; for when Fennings' Fever Mixture is wanted—it's wanted without delay!*

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Contains no additives of any kind. A valuable source of extra energy for athletes and all who lead an active life. Should be prescribed whenever a patient needs sugar without digestive effort. Packed in 1 lb. cartons.



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An appetising blend of pure Glucose and selected carbohydrates, carefully balanced to provide the ideal sugar addition to the milk diet of artificially-fed infants. Of special value in nutritional disorders. Packed in 1 lb. tins.



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stable, soluble, palatable calcium aspirin

Clinical sample and literature supplied on application.



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ZUBES

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Retailing at 5½d. an oz. loose;
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The



CHEMIST AND DRUGGIST

for RETAILER — WHOLESALER — MANUFACTURER

JANUARY 12, 1952

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Single copies 1/- each. Annual Subscription, which includes The Chemist and Druggist Diary and Year Book, £2

Volume CLVII

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NEWS OF THE WEEK

Revised Purchase Tax Notice.—A revised edition of Notice No. 78 (Goods Chargeable With Purchase Tax) has been issued by the Commissioners of Customs and Excise. Copies of the new edition are being sent to traders registered for purchase tax purposes.

Withdrawal of Authority.—Authority to be in possession of and to supply any drug preparation to which the Dangerous Drugs Regulations, 1937, or any drug to which the raw opium, etc., Regulations, 1937, apply, has been withdrawn from Dr. René O'Neil Fraser Kelly, M.B., Ch.B., whose registered address is 185 Westburn Road, Aberdeen.

Sterling Area Dollar Deficit.—The sterling area gold and dollar deficit in the first quarter of 1951 reached \$940 millions (or \$764 millions excluding the first capital payment and interest payments on U.S. and Canadian loans). In the third quarter there was a deficit of \$638 millions following a surplus in the first and second quarters, respectively, of \$360 millions and \$154 millions.

B.E.T.R.O. to Wind Up.—The British Export Trade Research Organisation is to be wound up as soon as all tasks on hand are completed. Founded by a group of leading industrial companies in 1945, the organisation was voted by Parliament a subsidy of £150,000 to be taken up during five years; in fact only £130,000 was drawn. Mr. Leslie Gamage (chairman, B.E.T.R.O. council) said on January 4 that double the annual turnover of £40,000 would be needed to make the organisation self-supporting.

Contacts with French Pharmacists.—The Franco-British Pharmaceutical Commission hopes to increase the number of personal contacts made between French and British pharmacists and their families in 1952. Members of the Pharmaceutical Society who are interested in any of the following possibilities are asked to notify the secretary, 17 Bloomsbury Square, London, W.C.1, as soon as possible and not later than March 3:—

1. *Exchange of children for holidays:* Please state age, length of holiday suggested and approximate dates.

2. *Hospitality to French pharmacists.*—Pharmacists who are able to offer hospitality to French pharmacists visiting Britain in return for similar hospitality in France are asked to state what accommodation they can offer, what are the most convenient weeks, how many persons could be accommodated and what their own requirements would be in respect of a return visit to France.

3. *Exchange of correspondence between pharmacists and between the children of pharmacists.*

4. *Letters of introduction.*—Pharmacists visiting France for holiday purposes and wishing to take a letter of introduction to French pharmacists are asked to apply about a month before leaving Britain.

Retirement Presentations.—A luncheon in honour of Mr. A. F. Pitt, B.Sc., F.R.I.C.,

on his retirement as chairman of Potter & Moore, Ltd., was held in London recently, Mr. Eric Bush in the chair. Directors of the company and of W. J. Bush & Co., Ltd., and their wives attended. Mr. Bush paid tribute to the work of Mr. Pitt and presented him with an inscribed silver salver on behalf of

the directors of the two companies, Mr. Pitt replying. Messrs. Brinsley and Cecil Bush also spoke. At a previously held luncheon of Potter & Moore, Ltd., Mr. Pitt was presented with a television set subscribed for by the staff of the company.



LOCAL NEWS

Plymouth Annual Dinner.—The annual dinner and dance of the Plymouth Branch of the Pharmaceutical Society was held in Plymouth on December 3, 1951. Among the guests of honour were the vice-president of the Society (Mr. W. J. Tristram) and the lord mayor and lady mayoress of Plymouth.

Staff Luncheon.—Employees of Hough, Hoseason & Co., Ltd., Manchester, were entertained to lunch by the directors on December 24, 1951. During the proceedings a gold watch was presented to Mr. R. Winning (drug and galenical processing department) to mark his long service with the company. An entertainment, which included items by members of the staff, followed the luncheon. (Picture, p. 41).

Wedding Gift from Employees.—A canteen of cutlery was presented recently by employees of Thornton & Ross, Ltd., manufacturing chemists, Linthwaite, Huddersfield, to Mr. Ralph Thornton, son of a joint managing director (Mr. Nathan Thornton) who is being married shortly. The presentation was made by Mr. A. Ellis (chief chemist).

Guild Activities in Manchester.—The Manchester branch of the Guild of Public Pharmacists held a social meeting in Manchester on December 4, 1951, when a series of films on subjects including balle was shown.—On December 5, 1951, a party of members led by Mr. W. Chatterton visited Rylands Library to see their collection of more than 3,000 early books. — A joint meeting of the branch and the Manchester Pharmaceutical Association was held in Manchester recently. Mr. W. E. Phillipson in the chair when an address on "Hospital Administration under the National Health Service" was given by Mr. A. T. Sampson (secretary, North Manchester Hospital Management Committee). Mr. Sampson reviewed hospital administration over the past thirty years showing the increase in the work of administration from the days of the self-contained voluntary hospital to the present day with the whole country divided into fourteen regions, each with its Regional Hospital Board, various committees and subcommittees. In the North Manchester group 10.5 per cent. of expenditure was for drugs, dressings, medical and surgical appliances.

Folkestone and Dover Dinner-dance.—The first annual dinner and dance of the Folkestone and Dover Branch of the Pharmaceutical Society was held at Folkestone recently, Mr. T. C. S. Neal (chairman) presiding. About seventy-five sat down to dinner and more than 100 attended the dance. With Mr. Neal were Messrs. D. W. Hudson (a member of the Society's Council), G. E. Shaw (chairman, East Kent Branch) and H. B. Taylor (past-chairman). Mr. Neal, proposing "The Pharmaceutical Society" (coupled with the name of Mr. Hudson), said that during the war there was little activity in the Branch, but since 1945 great efforts had been made to bring it to life. Replying, Mr. Hudson said that some of the problems with which the Council had to deal changed from year to year, others kept recurring. Most of their problems were due to the "ever changing nature" of the

work and the conditions under which they must practice. It was difficult to keep up to date with the advances in *materia medica* and applied pharmacy. He stressed the importance of the international outlook in pharmacy. In the sphere of military medicine and pharmacy, Britain was far behind other European countries, the Commonwealth and Dominions.

SCOTTISH NEWS

Pharmacy School Inspection.—Representatives of the University of London and of the Pharmaceutical Society are carrying out, early in 1952, their quinquennial inspection of the school of pharmacy, Dundee Technical College.

New Drug Tariff.—New pricing arrangements, and a new Scottish Drug Tariff incorporating revised dispensing fees and prices for drugs, etc., based on the Tribunal award on chemists' remuneration, came into operation on January 1. A full report will be given in next week's issue of *THE CHEMIST AND DRUGGIST*.

Danger of Sugar Coating.—At a meeting of the Edinburgh Accident Prevention Council held recently it was stated that one fatal accident involved a child who had eaten a sugar-coated strichnine pill. Dr. J. Logan Strang suggested that medicines which contained matter dangerous to children should not be "thus disguised." No adult would mind a nasty taste, he said, if it meant safeguarding children.

IRISH NEWS

Sweets Price Control Ends.—The Irish Minister for Industry and Commerce has made orders decontrolling chocolate and sweet prices.

Retiring Chairman to be Honoured.—The chairman (Mr. John McGregor), and members of the Northern Ireland Local Pharmaceutical Committee, are giving a dinner in honour of the retiring chairman (Mr. H. W. Gamble, president of the Pharmaceutical Society of Northern Ireland) in Belfast on January 17.

Ulster Chemists' Association.—A circular issued to its members by the Ulster Chemists' Association states that Health Service prescriptions for December 1951 are being priced by the averaging system, those for January 1952 in full. The circular is accompanied by a list of alterations and additions made to the Associa-

tion's price list. At the monthly meeting in January of the executive committee the president (Mr. W. R. McNabb) in the chair, the secretary (Miss A. E. Strachan) reported that she had drawn the attention of certain manufacturers who supply only small and very large dispensing packs to the fact that intermediate packs would be considerably more economical in use. Various price changes were approved, and it was reported that the matter of penicillin veterinary cerate had been referred to the Pharmaceutical Society of Northern Ireland. The following were elected to membership: Mr. P. Cosgrove, M.P.S.N.I., 54 Clonard Gardens, Belfast; Mr. J. C. McIntyre, M.P.S.N.I., 343 Newtownards Road, Belfast; Mr. W. H. Poultier, M.P.S.N.I., 55 Comber Road, Dundonald, Belfast; W. Heaney, Ltd., 23 North Street, Lurgan (successors to the Dispensing and Surgical Co., Ltd.); Mr. J. O'Hanlon, M.P.S.N.I., The Square, Coalisland (successor to P. Devlin & Co., Ltd.); Mr. W. J. Bolon, M.P.S.N.I., 43 Mill Street, Ballymena (successor to Mr. J. Reid). The following whose names had been approved by the Associates' Committee were admitted to Associateship: *Assistants*: Miss P. Johnson, Messrs. J. Lord, J. Rodgers, W. H. Forsythe; *Apprentices*: Miss M. F. F. Orr, Messrs. J. A. Houston and M. G. Bradley.

OVERSEAS NEWS

Plea for Pharmaceutical Corps.—The Canadian Pharmaceutical Association is urging the Federal Government to form a pharmaceutical corps in the Canadian Army.

Penicillin Factory for India.—India's first penicillin factory built with the help of the World Health Organisation is proposed to be built at Chinchwad, twelve miles from Poona. The factory is expected to commence production in 1953 and to cost Rs. 10,500,000. W.H.O. is to provide 350,000 dollars for technical assistance.

New Zealand Labelling Regulations.—Under health regulations shortly to come into force in New Zealand, the active ingredients and their proportions, and the name and address of the manufacturer, must be stated on the label of any preparation for sale to the public for which any medicinal property is claimed. The regulation applies to all preparations exported to New Zealand for sale to the public, but not used solely on prescriptions.

BRANCH AND ASSOCIATION MEETINGS

Pathologist's Talk at Bolton.—At a meeting of the Bolton Pharmaceutical Association held in Bolton recently, Dr. G. B. Manning (a consultant pathologist to the Home Office) gave an illustrated address on "Some Experiences in Forensic Medicine with Special Reference to Poisoning." Amongst points which Dr. Manning mentioned was that carbon monoxide was rapidly losing first place to the barbiturates as a means of suicide, and that contrary to popular belief, potassium cyanide was not instantaneous in its action.

Address on Antibiotics.—At a meeting of the Plymouth Branch of the Pharmaceutical Society in Plymouth recently, Mr. S. F. Woodward (Glaxo Laboratories, Ltd.) gave an address illustrated by lantern slides, entitled "Antibiotics—The Changing Outlook." Production in Great Britain was comparable now with that of U.S.A., and that greatly increased production, together with a price fall, had enabled larger doses to be used, he said. Other antibiotics had their uses by virtue of their action on bacteria insensitive to penicillin.

President at Aberdeen.—Mr. F. C. Wilson (president of the Pharmaceutical Society) gave an address on "matters of moment" to a meeting of the Aberdeen and North-eastern Scottish Branch of the Society, held in Aberdeen recently, Mr. J. Simpson, Banchory, in the chair. Members showed later in discussion that they differed over the increasing cost of production of the Society's journal and the registration or examination of unqualified dispensers. Visitors at the meeting included Dr. D. McCall (resident secretary in Scotland) and Mr. J. Jolly (a member of the Scottish Executive).

Chesterfield and Neighbours.—A meeting of the Chesterfield Branch of the Pharmaceutical Society recently, at which members of neighbouring branches were present, was addressed by the president of the Society (Mr. F. C. Wilson). Mr. Wilson enumerated the activities of the Society and afterwards answered members' questions. The address preceded a business meeting at which the following officers were elected:—Chairman, Mr. L. Hitchcock; Vice-chairman, Mr. C. E. V. Hancock; Treasurer, Mr. H. E. Keetley (re-elected); Secretary, Mr. A. Livesley, 35 Market Place, Chesterfield (re-elected). A

collection for the Society's Benevolent Fund realised £7 15s.

Joint Meeting at Somerset.—At a joint meeting of the Somerset Branch of the Pharmaceutical Society and the National Pharmaceutical Union in Wells recently, Mr. H. Steinman (a member of the Society's Council and of the N.P.U. Executive, and chairman of the National Health Service Joint Negotiating Committee), gave a *résumé* of the services of the N.P.U. The secretary of the N.P.U. Branch stated that the Branch was postponing consideration of the draft rules for N.P.U. Branches until a decision had been received from headquarters on its constitution. At a meeting of the Somerset Branch of the Society prior to the joint meeting the following delegates were appointed to attend the Branch Representatives' meeting in London in May: Mr. M. K. Wadham, Mr. C. B. Gosling, and Mr. N. F. Maggs.

Edinburgh Branch Members' Night.—At a recent meeting of the Edinburgh and South-eastern Scottish Branch of the Pharmaceutical Society three papers were read and discussed by members. The first by Mr. P. Nisbet was a note on an old indenture of apprenticeship. The article dated 1872, were between the father of a boy named James Gilbert Morgan, age fifteen, and Henry Dixon, pharmaceutical chemist, Ryde. The period of apprenticeship was five years, and the document was stamped, sealed and signed "in the thirtieth year of the reign of our sovereign Lady Victoria." In an old prescription book that was also on exhibition only one proprietary article had been recorded on the last fifty pages of entries. Mr. A. Kelly gave a talk on Birdsgrove House and its amenities, stressing that the only condition for admittance by a member was an appropriate certificate from the applicant's medical attendant. Mr. Eric Kneale reviewed the Addendum to the B.I. 1948, explaining the amendments. In the discussion which followed, Mr. C. Drummond illustrated the derivation of the term "indenture," showing how, tearing the agreement between the contracting parties, it was possible to produce the contract, each party retaining one portion of the divided document. It was suggested that films, film strips or even lantern slides would prove very useful to illustrate a talk such as Mr. Kelly had given on Birdsgrove House.

TOPICAL REFLECTIONS

Outlook for Research

On facing pages in your issue of January 5 the need for continued and expanded research was shown. Sir Alexander Fleming's authoritative pronouncement on the subject (p. 15) has, I hope, been widely and thoughtfully read. The report on chemical engineering research summarised on p. 14 emphasises the necessity—or at any rate the desirability—of considering the problems of the subject singly as well as in relation to each other. Two of the statements are debatable, but their examination would occupy more space than I can spare. We take it for granted that there must be a sufficient background of theory before research can be profitably undertaken. The common phrase "every chemist knows" should apply to an accepted grasp of facts, certified by passing an examination. (The phrase pulls us up sharply when applied to an unfamiliar statement.) Chemistry and physics must be of a reasonably high standard when a student is given an original study. That proviso being fulfilled, results can follow. Discoveries come, as Pasteur remarked to the prepared mind. I have sometimes hoped that a shorter way to the large-scale production of new chemical substances may be found. As we know, the present route is from a laboratory experiment via pilot plant. If it were known why a simple process of "multiplying up" from the data of the first experiment does not give an accurate forecast of the end-result, time and cost could be reduced. Meanwhile, research in chemical engineering has many promising subjects drawn up in the report referred to.

Weights and Measures

The case for the metric system and the case for the imperial system of weights and measures are well argued by two contributors on pp. 22 and 23. Human nature being what it is, we all like what we are used to. That, to my mind, is the major difficulty in the way of a total, even a general change to the adoption of the metric system. That system is firmly established for scientific calculation, and one gets into the habit of thinking in metric terms without much trouble. But a change over from the imperial system for dispensing and selling would involve an awkward and perhaps lengthy period of transition. Would the result justify the change? As I remarked some time

ago when this matter came up, we can cultivate the use of metric terminology in our own lives. Thermometers, for instance, can be obtained with metric graduations; and Press data of maximum and minimum temperatures can be mentally transposed into metric figures. The suggestion on p. 23 that a medicinal teaspoon may hold four mils and a medicinal tablespoon fifteen mils is of interest. It might have been supposed that a tablespoonful necessarily equals four teaspoonfuls. In Holland's translation of Pliny's Natural History it is noted that the tablespoon of that period (*circa* 1600) held three and a half drachms. On that scale either the proposed tablespoon would hold fourteen mils or the proposed teaspoon would hold more than four mils.

Morison's Pills

"Chemists and Chemistry in the '52s" (pp. 19-21) makes enjoyable reading, and must have entailed lengthy research. To the events of 1852 there recorded may be added the passing of the first Pharmacy Act, which received the Royal assent on June 30 of that year. The "Punch" cartoon reproduced on p. 19 suggests a note on Morison's pills. That famous proprietary article has been referred to in this section twice within the last thirty years or so, but on neither occasion was it mentioned that James Morison, the inventor, has the triple distinction of being referred to in the Dictionary of National Biography, Walford's "Old and New London," and Carlyle's "Past and Present." His British College of Health was erected in Euston Road, London, facing what is now St. Pancras station, in 1828. After his death in 1856 a memorial was placed on the building by the proceeds of a penny subscription, the contributors being—nominally, at any rate—persons who had derived benefit from his remedy. The memorial consisted of a stone lion mounted on a pedestal; that curious object was no doubt familiar to many of your older readers. Carlyle headed the fourth chapter of Book I of his "Past and Present" with the misspelling "Morrison's Pill:" he may have been misled by an advertisement containing the error. The purpose of the heading soon became clear: "It were infinitely handier if we had a Morrison's Pill, Act of Parliament, or remedial measure, which men could swallow . . . and then go on in old courses."

Xrayser

NEW COMPANIES

B. G. GLOVER, LTD. (P.C.)—Capital £1,000. To carry on the business of manufacturing, photographic and general chemists, etc. Benjamin G. Glover, M.P.S., and James Davies, directors. R.O.: 8 Southey Hill, Shefford, 5.

R. P. NINNIM (CHEMISTS), LTD. (P.C.)—Capital £2,000. To carry on the business of chemists, druggists, drysalters, etc. Reginald P. Ninnim, M.P.S., and Leslie C. Carter, M.P.S., directors. R.O.: Reynolds Cross, St. Mary Cray, Kent.

KENNETH E. WHITE, LTD. (P.C.)—Capital £5,000. To acquire the business of J. E. Williams, M.P.S., The Pharmacy, High Street, Ripley, Surrey. Graham Simpson and David G. Lindsay, subscribers.

Company News

A. MILLAR & CO., LTD.—Net profit for the year ended October 31, 1951 was £17,863.

W. J. BUSH & CO., LTD.—It is proposed to make a scrip bonus of one A ordinary share for every one ordinary and A ordinary held.

EVANS MEDICAL SUPPLIES, LTD.—It is pointed out by the company that the high and low prices for the company's 5s. ordinary stock (see *C. & D.*, January 5, p. 13) were adjusted figures to take into account, as is customary, the capital bonus of 75 per cent. made in July 1950, which lowers the market price. Actual high and low prices were 14s. 9d. and 6s. 10½d.

[It is the practice in the financial Press for highest and lowest prices to be adjusted in accordance with any bonuses issued and in the table published no departure was made from that practice.—EDITOR].

Voluntary Liquidations

DURBINS CHEMISTS (SUBURBAN), LTD., chemists, 82 Eden Street, Kingston-on-Thames. Liquidator: W. D. Menzies (of the same address).

L. CROFT & CO., LTD., chemists, 102 Southampton Street, Reading, Berks. Liquidator: Bernard Henry Jones, Somerset House, Blagrave Street, Reading.

W. D. NOBLE, LTD. (described in the "London Gazette" as retail chemists and druggists but not given in the Pharmaceutical Society's register), 16 Eastern Esplanade, Southend-on-Sea, Essex. Liquidator: Albert Fauteley, 25 Weston Chambers, Southend-on-Sea.

BUSINESS CHANGES

PHILADELPHUS JEYES & CO., LTD., have transferred their Spalding office to 6 Wins over Road, Spalding, Lincs.

IPSWICH INDUSTRIAL CO-OPERATIVE SOCIETY, LTD., 38 Carr Street, Ipswich Suffolk, opened a pharmacy at Selkirk Road, Ipswich, on January 7.

CENTRAL SCOTLAND PHARMACIES, LTD., have acquired the business of Mr. John Baydon, M.P.S., at 43 South Methven Street, Perth.

INDUSTRIAL RAW MATERIALS CORPORATION, LTD., have removed their offices to Raymond Buildings, Grays Inn, London W.C.1 (telephone: Chancery 4051).

REYNOLDS & BRANSON, LTD., Leeds have removed their manufacturing and motor dispatch sections to Leodis Works, North West Road, Leeds, 6. A portion of the Briggate premises now functions for "calling" orders. At North West Road a trade counter serves the needs of chemists in the north and north-west of the city (telephones: New premises, 29351; Briggate premises, 33681).

Appointments

BURROUGHS WELLCOME & CO (AUSTRALIA), LTD., have appointed Mr. P. A. Smith, B.Sc., their general manager.

BRITISH SCHERING, LTD., have appointed Mr. B. E. Hébert, Ph.C., their sales manager (pharmaceuticals) in Australia.

POTTER & MOORE, LTD., Lavender House, Seymour Road, Leyton, London E.10, have appointed Mr. J. B. Warnock their home sales manager.

RADIOL CHEMICALS, LTD., have appointed Mr. J. C. Cherry their representative in the London and Middlesex area north of the Thames and East Anglia.

EVANS MEDICAL SUPPLIES, LTD., have co-ordinated the research, development and analytical control of pharmaceutical products departments under Mr. C. W. Robinson (pharmaceutical development director). The manager of the new unit is Mr. F. J. Talman, B.Pharm., B.Sc., Ph.C. The following new appointments have been made: Mr. R. C. Whitehouse, M.P. (head of development department); Mr. J. Whittaker, B.Sc.(Pharm.), B.Sc. (Hon. Physiol.), Ph.C. (pharmaceutical research); Mr. G. Tunstall, A.R.I.C. (senior analyst); Mr. W. M. Stronach, M.P.S. (development department).

BIRTH

MARSHALL.—At Redlands, Glasgow, on January 2, to Leonora (née Williams), wife of James Marshall, M.P.S., 5 Flemington Street, Glasgow, a daughter.

MARRIAGE

GRAY—MUNRO.—In Inverness on January 1, Alexander Gray, M.P.S., 1 New Street, Whitehalls, Banff, to Miss N. L. Munro, Inverness.

DEATHS

BATHURST.—In hospital at Woburn Sands, Bucks, on December 27, 1951, Mr. Ernest F. Bathurst, Ph.C., aged seventy-seven. He had been in business in Woburn Sands for forty-five years. For many years he was a member of the Woburn parish council until he retired in 1949, and for some time he was its chairman.

BRIMS.—On December 16, 1951, Mr. Ronald Brims, M.P.S., 23 Craneswater Park, Southsea, Portsmouth, aged seventy-five.

BURCHALL.—In October 1951, Mr. Richard W. H. Burchall, aged ninety. Mr. Burchall, who was familiarly known as "doctor," spent his entire business career sixty-six years with Henry Bell, Quay, Peterborough, Eire.

EVANS.—Recently, Mr. Griffith Williams Evans, M.P.S., 40 Mount Park Crescent, Fulham, London, W.5. Mr. Evans, who qualified in 1891, was for many years, most from its inception, a director of the United Chemists Association, Ltd., Bletchingley. Mr. J. Hearle writes, "I first knew Mr. G. W. Evans when I was assistant to a neighbouring chemist in Hammarth, to whom he was always friendly and cooperative. Later it was my privilege to be closely associated with him for forty years. His enthusiasm and tireless energy were the means of promoting co-operation in pharmacy, particularly in the metropolitan area. After becoming a colleague with him as a director of the United Chemists Association, Ltd., in 1921, I was able to appreciate more fully his keen interest in promoting the welfare of all concerned—shareholders, customers and employees alike. He was retained in a consultative capacity as a tribute to his long and devoted service to the company, and is an active member of the Western [London] Pharmacists' Association. Mr. Evans rose to high office in the Masonic

world and was a keen Rotarian. He was a good pharmacist and citizen, a loyal colleague and true friend."

FRANCIS.—At the Laurels, New Tredegar, Mon., on January 2, Mr. Aaron Francis, M.P.S. Mr. Francis, who qualified in 1908, was in business in St. James Street, New Tredegar.

GARSIDE.—On December 28, 1951, Mr. Arthur Louis Garside, M.P.S., Avenue Road, Freshwater, Isle of Wight, aged fifty-six. Mr. Garside qualified in 1922 and set up in business in Freshwater in the same year. Previously (1915-21) he held a commission in the Royal Garrison Artillery. The funeral took place at Southampton Crematorium on January 3. A memorial service was held at Totland Bay on January 2.

LINLITHGOW.—At Hopetoun, South Queensferry, West Lothian, on January 5, Lord Linlithgow, aged sixty-four. Lord Linlithgow was chairman of the Medical Research Council and of the Imperial College of Science and Technology, 1934-36, and a director of Imperial Chemical Industries, Ltd., 1944-45.

MCCORMACK.—Recently, Mr. James McCormack, M.P.S.I., P.C. Mr. McCormack qualified in 1906 and had been in business in North Main Street, Wexford, Eire, for the past forty-five years. He was formerly a member of the Council of the Pharmaceutical Society of Ireland.

MARTIN.—Recently, Mr. Harry Martin, 49 Hermitage Street, Rishton, Blackburn, Lancs, aged seventy-four. Mr. Martin qualified as a chemist and druggist in 1906 and was for a number of years prior to retirement in business in Blackburn. He is survived by his widow, two sons and a daughter.

NIMMO.—On December 20, 1951, Mr. James Henry Nimmo, c/o Box 632, Bulawayo, Southern Rhodesia, aged seventy-six. Mr. Nimmo qualified as a chemist and druggist in 1899.

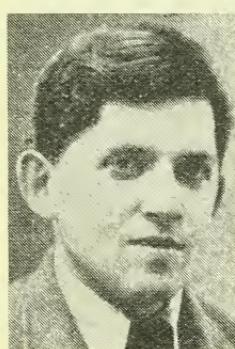
PAULETTA.—In Milan, on December 24, as a result of an experiment with an antibiotic substance on himself, Professor Giovanni Pauletta, a research worker on the staff of Carlo Erba.

SWINDELLS.—At his home in Joel Lane, Gee Cross, Hyde, Cheshire, Mr. Fred Swindells, aged eighty-two. Mr. Swindells qualified as a chemist and druggist in 1892, and was in business in Flowery Field, Hyde, for many years.

PERSONALITIES

MR. J. McDONNELL, M.P.S.I., Skevices, co. Dublin, has been elected to the committee of the St. Nathy's (Ballaghaderreen) College Union.

MR. K. B. ALBERMAN, M.A., Ph.D., has joined the technical staff of Innoxa (England), Ltd. — a company of which his father, Mr. A. Alberman, M.P.S., is managing director. Dr. Alberman, who is twenty-five years old, spent nearly two years as a scientific officer at the Harwell Atomic Energy Research Establishment. He returned to Cambridge for post-graduate research in 1949 and



recently gained his Ph.D.

MR. T. J. GARNER (export sales manager, Evans Medical Supplies, Ltd., Speke, Liverpool) has left for a tour of India, Pakistan, Ceylon and the Far East. He expects to be away about three months.

MR. P. A. SMITH, B.Sc., who has been appointed general manager of Burroughs Wellcome & Co. (Australia), Ltd., has served for several years as the works director of the Wellcome Chemical Works, Dartford, England. He takes up his appointment in Sydney in April.

MR. H. E. CHAPMAN (secretary, Proprietary Articles Trade Association) contributed a letter on vinaigrettes to the "Sunday Times" (January 6). He defines a vinaigrette as "a small box . . . intended for holding aromatic vinegar . . .," and refers to a selection of recipes for aromatic vinegar contained in the 1914 edition of "Pharmaceutical Formulas."

MESSRS. LOWELL P. WEICKER (president, E. R. Squibb & Sons) and THEODORE WEICKER, JUN. (president, Squibb International Corporation) were presented with the Stella della Solidarietà Italiana (Star of Italian Solidarity) medals by Signor Alcide De Gasperi (Italian Premier) in Rome recently during dedicatory ceremonies at new manufacturing laboratories of Laboratori Palma, S.p.A., licensed manufacturers and distributors of Messrs. Squibb's products in Italy.

WILLS

MR. H. D. ADCOCK, M.P.S., 53 High Street, Alcester, Warwicks, left £8,504 (£6,784 10s. net).

MR. S. J. MOSS, M.P.S., 31 St. Botolphs Street, Colchester, Essex, left £6,557 (£6,508 net).

MISS K. A. S. HIGGS, M.P.S., 26 Brunswick Road, Gloucester, left £9,421 (£9,353 net).

MR. W. G. HINDHAUGH, M.P.S., 58 Newgate Street, Bishop Auckland, left £4,764 (£3,799 net).

MR. T. J. BARKER, M.P.S., 24 Burnley Road, Todmorden, Yorks, left £10,997 (£8,963 net).

MR. G. W. SIGGERS, M.P.S., The Pharmacy, Ticehurst, Sussex, left £3,698 (£3,659 net).

MR. B. HOLDEN, M.P.S., 6 Wyccollar Road, Blackburn, Lancs, left £22,991 (£22,931 net).

MR. M. R. THOMAS, M.P.S., 2 Commercial Road, Abercarn, Mon, left £4,602 (£4,555 net).

MR. W. E. BRIDE, M.P.S., 531 Tong Road, Farnley, Leeds, left £3,449 (£3,400 net).

MR. J. JONES, M.P.S., Moor Street, Ormskirk, Lancs, left £2,386 (£1,533 net).

MR. W. FINDLATER, 80 Sidney Grove, Newcastle-on-Tyne (managing director of William Findlater & Co., Ltd.), left £446.

MR. C. J. HUNTER, M.P.S., 33 The Front, Seaton Carew, West Hartlepool, Durham, left £6,642 (£2,163 net).

MR. D. W. MCVITIE, M.P.S., 73 Senhouse Street, Maryport, Cumberland, left £14,112 (£13,431 net).

MR. W. D. OWEN, Park Crescent, Abergavenny, Mon (for many years a representative for Vinolia Co., Ltd.), left £4,544 (£4,495 net).

MR. F. H. McNEILL, 273 Addiscombe Road, Croydon, Surrey (founder of the Croydon Chemical Co. Ltd.), left £31,405 (£31,193 net).

MR. G. E. SELBY, 54 Bricknell Avenue, Hull (a director and secretary of Lofthouse & Satter, Ltd., Hull), left £2,806 (£2,736 net).

MR. H. A. WALLWORK, M.P.S., 212 Elliott Street, Tyldesley, Lancs, left £11,838 (£11,73 net).

MR. R. G. SANDERSON, M.P.S., 12 Woodhouse Road, Hove 3, Sussex, left £6,529 (£6,458 net). He left £10 to the Benevolent Fund of the Pharmaceutical Society.

MR. E. L. CLAYTON, 30 Spring Grove, Radcliffe New Road, Radcliffe, Lancs, for many years with W. H. Legat, Ltd., Bolton, left £8,248 (£8,19 net).

MR. J. M. JOHNSON, M.P.S., F.C.S., 72 Carles Avenue, Harborne, Birmingham (managing director of Blackwell, Hayes & Co., Ltd., Birmingham) left £5,860 (£5,650 net).

MR. A. W. HAIGH, Claylands, 356 Leymoor Road, Golcar, Huddersfield (formerly senior representative of Thornton & Ross, Ltd., Huddersfield) left £2,182 (£2,149 net).

MR. H. FREEDMAN, M.P.S., 107 Oxford Street, Pontycymmer, Glam, for many years representative of Moore Medicinal Products, Ltd., left £5,077 (£4,892 net).

NEWS IN PICTURES



Representatives of Ciba Laboratories, Ltd., Horsham, at sales conference dinner recently. Executives and senior members of the Horsham staff also attended.

Right: Mr. J. A. Ware, an Australian pharmacist with his bride, Miss Barbara H. Tuck, Romley, Kent, whom he married on January 4. They set sail soon.

Below: Mr. Ian Ferguson (chairman, Evans Medical Supplies, Ltd.) at a presentation of gifts from the company to the Olive Mount Children's Hospital, Eke, recently.



Above: Indians of the Amazon region of South America using the blow-guns with which they propel curare-tipped darts. The crude curare syrup is made in only a few localities. The Indians travel for many miles to trade for it.



Below: Members of the staff of Hough, Hoseason & Co., Ltd., Manchester, at the company's Christmas luncheon, 1951 (see p. 34).



TRADE NOTES

Solvent in Stock.—L. Light & Co., Ltd., Poyle Trading Estate, Colnbrook, nr. Slough, Bucks, state that they have adequate stocks of propylene glycol for use as a solvent with Chloromycetin.

Speedy Label Printing.—Trendells, 100 Lintrathen Street, Dundee, offer delivery within 14-18 days ("but often even quicker") of printed labels on gummed paper. Samples are sent by return.

Zinc Oxide and Carbonate.—Pharmaceutical grades of zinc oxide, zinc carbonate and calamine are included in the range of chemicals marketed by Durham Raw Materials, Ltd., 1 Great Tower Street, London, E.C.4.

Supplies Cut.—F.A.I.R. Laboratories, Ltd., 179 Heath Road, Twickenham, Middlesex, state that, owing to import restrictions, the supplies of Roter gastric-ulcer tablets are reduced for the next six months to about 6 per cent. of requirements. Chemists are asked to inform their customers of the cause of the shortage.

Aqueous Suspensions of Sex Hormones.—The British Drug Houses, Ltd., Graham Street, City Road, London, N.1, are now offering saturated aqueous suspensions of oestradiol monobenzoate, B.P., progesterone, B.P. and testosterone propionate, B.P. Details are given on another page.

"Salespur" Scheme.—Details of a 1952 "salespur" scheme for the sunglasses of Thurgar Bollé (Successors), Ltd., are given in an illustrated folder available from the company's offices at Orient House, Wellingborough, Northants. With orders under the scheme a new Regency stock and display mirrored cabinet is given free with other free counter and window sales-promotion material. A special discount and pay-as-you-sell terms are also offered.

Ampoule Cutting by Diamond.—Automatic Weighing and Packing Machine Co., Caroline Street, Birmingham, 3, are incorporating a diamond in place of an abrasive wheel in their latest ampoule cutting machines. The diamond makes a clean score with no trace of foreign matter to contaminate the ampoule, and does not require the frequent sharpening and replacement inseparable from the abrasive wheel.

PRICE CHANGES

Inclusive retail price

Pharmaceutical Specialities (May & Baker), Ltd.
(To trade from January 14, to public from February 11).

Vegolysen tablets	0.25 gm.	50	...	...	5	0
		500	...	...	48	0
	10 per cent. solution,	10 x 1 c.c.	...	...	8	3
	1 per cent. solution,	10 x 10 c.c.	...	...	13	6
	10 per cent. solution,	25 c.c.	...	...	10	6

(available from January 14).

Vegolysen T,	0.35 gm.	50	...	...	6	3
		500	...	...	60	0

Shadeine Co. (from February 1).

Shadeine,	1-oz.	18	0	100	3	6
	2-oz.	29	7	100	5	9

Golden Shadeine,	2-oz.	18	0	100	3	6
	4-oz.	29	7	100	5	9

Icilma Co., Ltd. (from January 1).

Poem	tinted foundation	...	...	...	3	6
	lipstick in holder	...	...	...	5	6
	lipstick refill	...	...	...	2	6
	cleansing cold cream	...	...	...	3	6
	face powder, large	...	...	...	3	6
	small	1	6

British Permanent Starch Co., Ltd. (from Jan. 12).

Dip permanent starcher	1	1
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PROPRIETARY ARTICLES TRADE ASSOCIATION

Alterations to the Protected List (Part 1)
Doz. Tax I.R.

<i>E. F. Langdale</i> (from January 1)						
Langdale's cinnamon essence and tablets:						
Great Britain	...	12	6	33	1	1
		30	0	33	4	4
		48	0	33	6	6
		120	0	33	16	16
Northern Ireland	...	13	6	33	1	1
		32	0	33	4	4
Republic of Ireland	...	15	6	Nil	1	1
		34	0	Nil	3	3
		54	0	Nil	5	5
		129	0	Nil	13	13

Lifeguard Products, Ltd. (from December 31, 1951).

Lifeguard disinfectant,	12-oz.	17	3	Nil	1	1
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NEW PRODUCTS AND PACK

Rapid-action Aspirin.—On another page W. T. Owbridge, Ltd., Osborne Street, Hull, direct attention to their new rapid-action aspirin tablet.

Larger Sizes.—Allen & Hanburys, Ltd., Bethnal Green, London, E.2, have introduced a bottle of 100 and an aluminium container of 1,000 chloramphenicol capsules, 0.25-gm.

Chloromycetin Cream and Ointment.—Parke Davis & Co., Ltd., Staines Road, Hounslow, Middlesex, announce the addition to their price list of a 1-oz. tube Chloromycetin cream, 1 per cent., and $\frac{1}{2}$ -oz. tube of Chloromycetin eye ointment, 1 per cent. Neither product is at present available for export.

High Protein Food.—Beecham Group, Ltd., are shortly marketing Brockh-

high-protein food, a flaked concentrate of powdered brewers' yeast, yoghoured skim milk, molasses and wheat germ, the yeast is supplied by arrangement with Watney, Combe Reid & Co., brewers, London. The distributors of the product will be Macleans, Ltd.

Local Antibacterial Agent.—Pharmaceutical Specialities (May & Baker), Ltd., Dagenham, introduced on January 7 Bruline, which contains 0.15 per cent. diromopropamidine isethionate in a water-miscible base; it is a stable preparation with powerful antibacterial activity and is indi-

cated for the prophylaxis and treatment of infected burns and wounds. The pack is a 4-oz. collapsible tube.

Antibacterial Skin Cream.—A new product Lanolive is being launched this month by Kathleen Court (England), Ltd., The three main ingredients of the product are lanolin, olive oil and hexachlorophene. Its uses are varied but it is particularly recommended for healing and protecting rough and inflamed skin. Lanolive is issued in a 2½-oz. bottle. Details of a 14-to-the-doz. bonus offer in operation until February 16 appear on another page.

INTERNATIONAL CONTROL OF NARCOTICS

THE annual report of the Permanent Central Opium Board, just released, summarises the work of the Board for 1951 and presents an up-to-date account of the present state of international control of dangerous Drugs. It is noted that cooperation continues to improve from countries that formerly failed to fulfil their obligations to send the statistics required under the International Conventions on narcotic drugs. The production of opium and coca remain the most important factors in the inadequacy of control. Iran has applied statistics; they show that 333 tons of raw opium disappeared in 1950.

The diacetylmorphine control situation in Italy has given rise to widespread criticism and anxiety owing to the escape of 64 kilos of the drug into illicit traffic. The Italian Government has prohibited new production until present stocks are exhausted, and supervision over trading has been intensified. The consumption of acetylmorphine in six countries (Australia, Finland, Italy, New Zealand, Sweden and the United Kingdom) decreased in 1950. Finland, in particular, has greatly reduced its high consumption of the drug, while Switzerland is prohibiting its manufacture and export from January 1952.

The protocol of November 19, 1948, sought twelve synthetic narcotics within the 1931 Convention during 1951. It is emphasised that international non-proprietary names (pethidine and methadone) should be invariably followed in "national pharmacopœias, faculties of medicine, medical prescriptions, labels on packages, port and export licences, relevant national and international statistics and estimates, etc." At present some Governments furnish separate estimates for pethidine, demerol and dolantin, not realising that these are different names for one and

the same drug, already known by more than thirty designations. Measures for the repression of clandestine manufacture of synthetic narcotics should be strengthened, as their manufacture from uncontrolled raw materials may be easier than is the case with "natural" narcotics.

The consumption of pethidine in medicine is one and a half times that of morphine in amount but less than one-fifth in analgesic effect. The use of methadone (amidone) is decreasing, falling in the United States in 1950 to one-sixth of the 1949 consumption. The utilisation of the other ten synthetic narcotics is still very limited, being *nil* for some of them.

The "dihydro" drugs (dihydromorphine, dihydrocodeine, etc.) have also been in demand. It is noteworthy that the consumption of cocaine was the lowest ever recorded. Production of diacetylmorphine and ethylmorphine also decreased in 1950.

It is likely that the world production of morphine continued to increase during 1950. It is estimated at 61.8 tons—a new record—due mainly to conversion of the drug into codeine totalling 54 tons.

Particulars as to the trends in the *licit* movement of narcotic drugs gain in significance by completion of the data for 1946, 1947, 1948 and 1949 for comparison with the (incomplete) figures for 1950.

Interest centres in the increasing production of morphine for poppy straw (from 8.1 tons in 1948 to 10.9 tons in 1950). Hungary has become the largest maker of morphine from this source and has taken first place over the United Kingdom as an exporter of morphine. It is noteworthy that an "embargo" was imposed upon Kenya for exceeding its import quota; also that Denmark has been asked to explain its "abnormally high" consumption of morphine, methylmorphine and ethylmorphine.

NOMENCLATURE OF DRUGS

Dr. Hartley Addresses an Evening Meeting of the Society

AT the first evening meeting in 1952 of the Pharmaceutical Society, held in London on January 7, Dr. Frank Hartley, B.Sc., Ph.D., Ph.C., F.R.I.C., gave an address on "The Nomenclature of Drugs," Mr. F. C. Wilson (president of the Society) in the chair. The following is a shortened version of Dr. Hartley's address:—

The number of chemical substances used in medicine is already so large, and their chemical constitution is often relatively so complex, that reliance upon precise, or even approximate, chemical nomenclature for their description is quite impracticable. The organic chemist can be expected to remember chemical formulæ and then to name those precisely, but such a shorthand method would be absurd to contemplate for prescribing purposes or for labelling. Those substances must therefore be christened by shorter and more easily remembered names. Shortness of name and ease of remembrance are not the only criteria involved. Confusion must be avoided between the names for different substances.

Bases for Patent Grants

To encourage new manufacture and inventiveness the law allows application for and grant of patents for processes of manufacture that are novel, useful and not obvious, and—since January 1950—for products that do not occur naturally. Patent protection is not normally granted for new compositions of matter unless the properties of the new composition are not predictable from the aggregation of the known properties of the constituents. Statutory protection may, however, be obtained under the Trade Marks Act for registered names or marks whether or not the grant of patents may be obtained for the products concerned. Marks registrable under the Trade Marks Act are, with certain justifiable exceptions, invented or "coined" words which are not adjudged by the Registrar or owners of other trade marks obviously descriptive or capable of confusion with names already registered for the same class of products. Since, to secure registration as a trade mark, a name must only be either "adapted to distinguish" or be adjudged "capable of distinguishing" the goods of one maker from those of another, there is no objection to the invented name convey-

ing some kind of clue to the action, use or composition of the product.

The possibility of securing proprietary rights in names, for products which in their composition, if not in their presentation, may be identical with those of another manufacturer, leads in pharmaceutical products to the much criticised multiplicity of trade names for identical products. Although under the National Health Service, where the Ministry of Health is in effect the main ultimate purchaser, it can be urged that there should be no difference in the price to be paid for particular product under whatever name it is prescribed, there remains the competition for sales for a particular drug or preparation, and an increased proportion of prescribing and sales can result for products with names that become known before others or better known than others. This competition for sales is held by manufacturers to create difficulties for the pharmacist in having to stock competing brands of the same product. In consequence it is urged by many that prescribers should be encouraged by official action to avoid the use of trade names wherever possible. Trade names are, however, in my view, essential as a means of getting a product known and used, before copies of it appear on the market. It must be remembered, moreover, that there is, in addition to the home market, a considerable possible world market for British pharmaceutical and medicinal products.

Export Considerations

In several overseas markets the ability to secure registration of a proprietary name is dependent on obtaining a certificate of registration of that name in Britain.

Resistance to the use of trade names for pharmaceutical products in this country, while on the one hand seemingly desirable in the interests of rationalisation, must restrict the over-all sales resulting for such products overseas and therefore in our present circumstances be contrary to our export needs.

Both from the manufacturer's point of view, to safeguard his registered position as well as from the pharmacist's and public points of view, there is need for selection of open or non-proprietary names. Before any official machinery was created to assist in this matter, manufacturers had to coin for themselves and secure some

publicity for, non-proprietary names, but under the Poisons Rules such self-coined names are inadequate.

Early in the recent war British manufacturers requested the Pharmacopœia Commission to devise, and to give recognition to, names of substances previously manufactured abroad and about to be made and marketed in this country. It is satisfactory to note that under the World Health Organisation new steps have been taken which, in the course of time, may bring about world-wide recognition of the need for commonly accepted non-proprietary and non-registerable names for drugs. A subcommittee for the selection of non-proprietary names for drugs was set up in November 1950 by the W.H.O. Expert Committee on the Unification of Pharmacopœias, and a first list of international non-proprietary names was published in April 1951.

Certain points arise in the selection of approved names:—

1. The criteria to be followed.
2. The need to avoid confusion with other names of drugs, whether registered or not, in this or in any other country.

Easy to Pronounce and Remember

It is, I think, axiomatic that an approved name must be distinctive and easy to pronounce. Its suitability for memorising would seem to be its most desirable feature. The prescriber when selecting the drug needed will normally be thinking of the condition in the patient for which he wishes to prescribe. It would seem desirable that the name should convey some anatomical, physiological, pathological or therapeutic suggestion. But if it does, is it desirable for the patient receiving the prescription to be able to infer the condition being treated? Obviously in many cases that would not matter, but in some it would, I think, be undesirable. There is the further complication that more than one drug may be available having precisely the same therapeutic indications. There may be difference in potency, side-effects, chemical composition, and so on. Clearly the choice of distinctive names would become restricted if a clue to the relationship to a biological action were to be the primary guiding principle of name selection. In their wisdom the Pharmacopœia Commission have decided that names recommended as Approved Names should preferably be free from any anatomical, physiological, pathological or therapeutic suggestion. The operative word

in that decision is, I think, "preferably."

Differentiation between the so-called antihistaminics or the sulphonamides or hypnotics would not, I think, be possible by acceptable short names indicating action. The only feasible solution seems to be to form names by combining syllables from the scientific chemical names in such a way as to indicate something of the significant chemical groupings of the molecules. But if one then adds the provisions that the names must be distinctive in sound and spelling, easy to pronounce and remember and not liable to confusion with existing names, all within, say, not more than four syllables, the result may not always be pleasing to all.

Dealing with Groups

As a class, the various sulphonamide drugs have closely related chemotherapeutic properties. Capable as most of them are of aiding in combating a range of infecting organisms, the naming of even a dozen compounds by reference to their action would quickly lead to confusion. The only feasible method seems to be by reference to the chemical groupings in the molecules. So the prefixes sulph- or sulph- have been considered helpful as a starting point. But with increasing complexity of groups attached to a *p*-aminobenzene sulphonamide or related nucleus, the naming of variants in another two or three syllables provides exercise for ingenuity.

Another aspect of the problem arises occasionally from the tendency to use initial letters of the words of a name by which a substance has become known. Thus the chemical substance 2:3-dimercaptopropanol was originally described by those associated with its interest as a war-gas antidote, as British anti-Lewisite or more shortly BAL. Such a description, though widely used in biochemical and other literature, was not considered suitable for a drug by the Therapeutic Substances Act Authority, and the name dimercaprol derived from the chemical name was agreed with the Pharmacopœia Commission as more appropriate. That name has since been adopted for the monograph on this substance in the Addendum 1951 to the B.P., 1948, B.A.L. being a synonym. It is sometimes urged that the use of capital letters would be a considerable help in nomenclature and it is said that the use of A, B and C have never been bettered as names for vitamins in spite of gallant attempts. But there are arguments against it.

Still another aspect of naming drugs arises from the possible use of more than one salt of a new drug in medicine. In general, an approved name is now given to the base and the normal descriptions of the anions added. It might be noticed in passing that such a nomenclature has not always been adopted for approved names.

Consultation

The British Pharmacopœia Commission exchanges lists of approved names with the Scandinavian Pharmacopœia Council and with the Council of Pharmacy and Chemistry of the American Medical Association. Obviously, however, reciprocal consultation on proposals for approved names before their adoption is essential for international co-operation to become a reality. Progress towards such co-operation is best helped by the adoption, wherever possible, of the approved name first selected in any one of the co-operating countries. Can we go on lengthening the names to preserve indication of a relationship to the parent group? Names such as dimethyl-quinolinolinosuccinylsulphathiazole would, I think, rightly exasperate both prescriber and pharmacist. It is no answer to say that the products so-named would not be used. Their properties might be such that the prescriber considers their use essential.

Will he not tend to use instead trade names chosen for them if these are shorter and more attractive?

DR. C. H. HAMPSHIRE said he was obliged to Dr. Hartley for his references to the work of the World Health Organisation. Requests to member nations to take legal action against registration of approved names as trade marks had met with a number of favourable responses. Dr. Hampshire pointed out that what was euphonious in English might not be so in other languages.

DR. G. E. FOSTER declared that, whatever else they did, the Pharmacopœia Commission in fact increased the number of names used. He could not see why manufacturers should not be given the chance to surrender their rights in the name which could then be adopted as the official name. DR. HARTLEY replied that they had to bear in mind that there might be other closely related substances requiring approved names. An independent body had to act independently "even if it looked a gift horse in the mouth."

MR. A. WHITE asked whether users of approved names were protected against any legal action for infringement of trade mark arising from that use. DR. HARTLEY said advice was taken to ensure that the approved names did not conflict with existing trade names.

MORE ABOUT KRILIUM

KRILIUM, the new synthetic organic chemical (see *C. & D.*, January 5, p. 2), which is understood to be 100 to 1,000 times more effective in improving soil structure than compost, manures or peat moss, is described in a statement issued by Monsanto Chemical Co., U.S.A. Chemically the substance is a hydrolysed polyacrylonitrile and is classed as a synthetic polyelectrolyte. Certain natural gums of the polysaccharide or polyuronide types in good topsoil are responsible for cementing together primary soil particles to form water-stable aggregates of optimum size. The Krilium polymer, a water-soluble resin, is a synthetic replacement of those resins, and indications are that it retains its aggregating power against decomposition by soil micro-organisms in some cases at least ten times as long as the natural crude organic matter. The primary effect of Krilium on ordinary soil is at once to stabilise clay aggregates against the dispersing or slaking action of water. Its maximum aggregating effect at lowest concentration is obtained in the

presence of small amounts of sodium, calcium, magnesium and other cations.

Under Extensive Test

The product is being tested extensively both by the company and by approximately eighty technical co-operators in the United States, including universities and federal and state agencies. Krilium is expected to have wide application as a soil conditioner in horticulture. Krilium, 1 lb. has essentially the same effect on soil structure as 200 lb. of peat moss or 500 lb. of commercial compost, making it much more economical than those substances despite a higher price per lb. A treated soil's capacity to hold water against drainage (gravity) is increased without loss of aeration. While the soil drains freely, it retains as much as 30 per cent. more water, after saturation and drainage, because of an increase in pores inside each small soil aggregate. The product will not be on the market in substantial quantities before 1953.

CORRESPONDENCE

Letters may be sent for publication under an assumed name, but the correspondent must furnish his real name and address to the Editor

From One Who Was There

SIR,—It is pleasing to note your favourable comment on your predecessors' actions in helping to initiate the Chemists' Dental Society. I am probably one of the very few left who were present at our first meeting, over forty-one years ago, and can assure you of the appreciation always felt by the members and I feel that it would not be right to allow our passing away to go by without expressing to you and THE CHEMIST AND DRUGGIST our most grateful thanks.

London, W.C.1. JOHN W. ROBERTS.

Gratitude for Brilliance

SIR,—One was hoping that the lively pens which animate the correspondence columns of your journal would have been active in expressing gratitude to Mr. Colin Gunn and his able colleagues for their most instructive refresher course. Alas! the spirits of Christmas had overtaken hem! I am sure that the older generation of pharmacists have gathered much valuable knowledge as a result of these informative articles. The brilliance of Leicester School of Pharmacy gleams more brightly than ever. Thank you, Mr. Gunn, and you, Mr. Editor, for your enterprise.

Sidmouth. GARNET SKINNER.

Metric System for Pharmacy?

SIR,—Following up a few points mentioned by the protagonists of the metric and imperial systems (*C. & D.*, January 5, p. 22 and 23), may I make the following comments? At present the pharmacist uses two principal systems (avoirdupois and apothecaries') and a subsidiary system metric). Most of the newer drugs are supplied in dosage form, so that weights and measures are not much involved. If the metric were largely to replace the apothecaries' system he would still be working in two principal systems (avoirdupois and metric) and a subsidiary system (apothecaries') which would persist for a long time. Surely the decision must come primarily from the medical profession—if they prescribe in metric the pharmacist must dispense in that system. Agreement between the professions would seem to be called for. In the wider field agreement should first be sought with the Common-

wealth, the Colonies, and the United States, who work largely as we do—the export argument is a bit overdone. The dose problem is one of the most important aspects of the suggested change, involving the safety of the public. Reference is made on p. 23 to "decimal notation of dosage." This is fraught, particularly in the case of potent drugs, with considerable danger (e.g., in the new International Pharmacopoeia the dose of atropine sulphate is shown as 0.00025 gm.). Would the changeover be worth even one fatal mistake due to a misplaced decimal point? Is it not possible that doctors might be shy of writing in metric notation a prescription for drugs, and take the easier course of prescribing more specialities? The public could, under a metric system, still take their medicine by the "spoonful" as is done on the Continent, but they would not want to buy castor oil by the millilitre. The pharmacist has been brought up under the present *régime* and is not really worried about it. He would be far more worried by a change. The suggestions on p. 22 that he would receive "Relief from the unnecessary complications . . ." and that the syllabus would be simplified, are exaggerations.

NONDUM.

"Chemists Only" Dressings

SIR,—I was interested to read Mr. Leapman's letter (*C. & D.*, 1951.II.848) and am bound to conclude that this company must be the one to which he referred as being the only "ethical" supplier of dressings left in the trade. If it was not, I think that in fairness to us he should be reminded that we supply dressings, and in fact all our products, to qualified chemists only. Our recent advertisements in your journal have made this fact quite clear and, though we do not at the moment advertise dressings in the national Press, all our national advertising for teats, feeding bottles and sanitary towels states clearly that our products can be obtained only from chemists. I quite agree that a firm supplying exclusively to qualified pharmacists should in return receive their full support. Will Mr. Leapman lead the way?

Denys M. Maw, *Managing Director*,
Barnet S. MAW SON & SONS, LTD.

How Plastic Combs and Brushes Are Made

THE processes by which plastic substances are transformed into such articles as combs and tooth-brushes may not be well known. They were certainly little known to a member of the *C. & D.* editorial staff until he was recently given an opportunity to visit the factory of Halex, Ltd., Highams Park, London, E.4.

Fire Precautions

The factory comprises a number of single-story buildings in which celluloid is extensively used and for that reason every precaution is taken against fire. For example, all persons (workers and visitors alike) on entering the factory are required to surrender all matches, lighters and partly smoked cigarettes, and so soon as the temperature in any building rises above a certain level the company's private fire service is called into action.

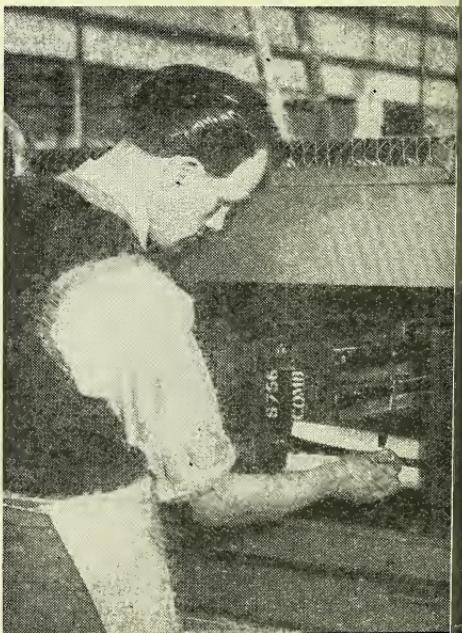
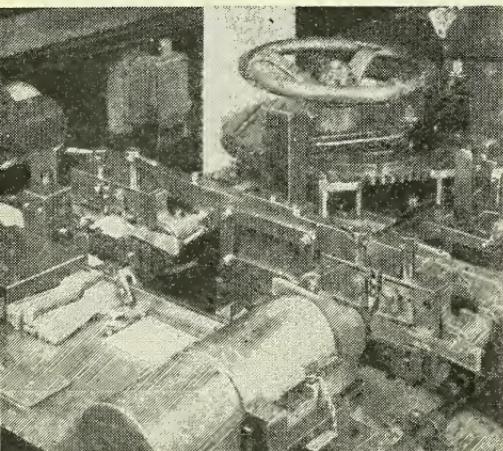
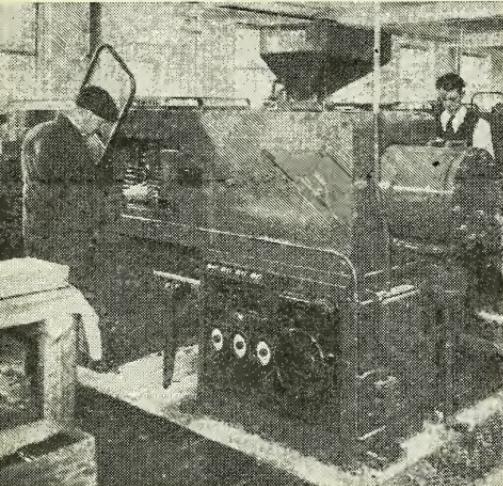
Two types of plastics are used at the Halex works—thermo-plastic (including polystyrene and polyvinyl chloride), which soften without chemical change and can be resoftened and remoulded; and thermo-setting (including Bakelite), which cannot be remoulded. There are also two main moulding processes: injection moulding and compression moulding. In the making of combs and brush backs and handles, a controlled amount of granules of the plastic is fed through a hopper into a machine in which it is softened by heat and forced, under pressure, through a jet into a cold mould. After an automatically determined interval the mould opens and the product is removed by the operator. Small objects such as combs are moulded in groups and the units separated by hand after moulding.

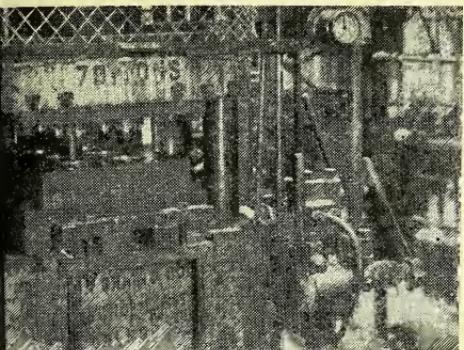
Compression Moulding

In the compression process a weighed amount of plastic (as powder or pellets) is placed in an open mould, which is then closed and heat and pressure applied. The mould remains closed for a fixed time, during which the article is said to be "cured." The degrees of pressure (twenty-five to 500 tons), and temperature and

Left: Injection moulding machine. Operator is removing an aggregate of tooth-brush handles. At foot of left-hand column: Denture brush filling machine in operation.

Below: Close up of an injection mould and an aggregate of combs.





above: Mould of a compression moulding machine about to close. In practice a wire-mesh guard is laced in front at this stage.

right: Hand-operated hairbrush filling machine in use.

length of time depend upon the article being produced. In any moulding process there is a certain amount of waste material which has to be removed from the finished article (for example, the material that binds several tooth-brush handles together when they are moulded in one operation. With thermosetting materials the waste has to be kept to a minimum as it cannot be reclaimed. Thermoplastic material can be used again after grinding the waste material to a powder and feeding it into a machine in which it is heat-softened and forced through an opening. The long filaments that are thus extruded are cut up into granules for moulding further articles.

Fixing the Bristles

Among the most ingenious machines in the factory were some to be seen in the brush-filling departments. A single machine performs the two operations of drilling holes in a moulded brush-back and fitting tufts of Nylon or bristle into the holes. While one back is being filled another is being drilled. The just-drilled back takes the place of the one that has just been filled, and an untreated back moves into the place of the former. The tufts are held in place by wire staples, which are automatically cut from a coil and inserted along with the tufts. The erator of the machine moves a "master" metal plate, in which are holes corresponding to those in the brush backs, in front of a plunger, so that the plunger successively enters each hole in the master. The movements of the two brush backs on the machine reproduce that of the master so that punching and filling are accurately



performed. Some machines are entirely automatic, the orientation of the tufts being regulated by a complicated cam. One of the machines used for filling toothbrushes was designed and built in the company's engineering workshop.

A PHARMACIST'S ANTHOLOGY

THE (dead) elephant had become a victim to the craze for souvenirs. Already in the night his tusks had been stolen; then his feet disappeared for umbrella stands, and most of his flesh had departed in little hunks. Everybody in Burslem had resolved to participate in the elephant. One consequence was that all the chemists' shops in the town were assaulted by strings of boys. "Please a pennorth o' alum to tak' smell out o' a bit o' elephant." Mr. Critchlow hated boys. "I'll alum ye!" says I, and I did. I alummed him out o' my shop with a pestle. If there'd been one there'd been twenty between opening and nine o'clock. 'George,' I says to my apprentice, 'shut shop up. . . . I'll close. I've had enough o' alum for one day.'"

—From *The Old Wives' Tale*, by Arnold Bennett.

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 quickly lines which they have previously purchased

INFORMATION WANTED

The Editor would appreciate information
 about suppliers of the following item:
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Official organ of The Pharmaceutical Society of Ireland, The Pharmaceutical Society of Northern Ireland, The Chemists' and Druggists' Society of Ireland and of other Chemists' Societies in the Empire.

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Naming a Drug

THE indecision that overtakes many in naming a new arrival in the family is enormously complicated in the christening of a new drug, since the name of the drug has first to be coined instead of being selected (as a rule) from an existing list, however lengthy. It is not surprising that some of the approved names adopted by the Pharmacopœia Commission come in for criticism on many scores, some justified and some showing failure to appreciate the difficulties. No doubt individual selections will continue to be greeted with metaphorical catcalls until the end of time, but it is doubtful whether a more lucid, lucid and coherent presentation of the principles that guide the naming authority than was given by Dr. Hartley at the London evening meeting of the Pharmaceutical Society on January 7 (p. 1) will ever be given. Dr. Hartley's level approach shows him to have reconciled to some degree the conflicting interests he represents in being at the same time a manufacturer of speciality drugs and a member of the nomenclature committee of the Pharmacopœia Commission, and the tribute paid to him by Dr. Hampshire on that score was well earned. The manufacturer in naming his product is often an advantage that is denied to those who have to choose a name not for registration. He can often plump for shortness and ease of remembrance to the exclusion of many other considerations. His aim being to sell, he can also, in many circumstances, make use of a "coloured"

word that attracts users to his own product. The Commission must be independent as between one manufacturer and another, though even the Commission ought not, under the guise of impartiality, to give advantages to runners up among manufacturers that should accrue to the originator of a genuinely new medicinal agent.

To one aspect of Dr. Hartley's lecture we have not had space to do justice, though it embodies a most important consideration. He quoted figures to show that exports of proprietary medicines exceed 70 per cent. of home sales. Bearing in mind the fact that registration of trade names in many overseas territories is dependent on producing a certificate of registration in Britain, the policy of avoiding trade names can easily become, as Dr. Hartley pointed out, an interest conflicting with the economic welfare of the country as embodied in its volume of exports. The issues involved are not for easy and snap conclusions, and the lecturer deserves the commendation of the trade for presenting them so fully and in so orderly a manner.

Tightening-up on Loans

WHEN the Chancellor of the Exchequer announced about two months ago that the bank rate was being raised, he made it clear that the Government would expect all banks to continue and intensify their efforts to restrict credit to essential purposes. The banks' response to those measures has been speedy and definite. Importers, among them those of crude drugs, etc., who have hitherto bought a shipment of a commodity as the new crop became available and have held it in stock against future demands, now find that the banks will not finance such operations. A short-term loan is only considered if the goods are for immediate consumption. The effect of this is no less obvious—less material will be available on the spot and it may well be dearer. Since the 1939-45 war the variety and the volume of drugs held on the spot has diminished considerably. Increasing warehouse and insurance charges and higher labour costs—because of double handling—have been the principal factors in bringing about the change.

The new restrictions will further deplete the number of commodities held in stock.

Provided consumers are able to budget their requirements sufficiently well ahead, of course, there seems small reason for raw material costs to rise because of the latest measure. Should supplies, however, run short and replenishments be required quickly, buyers must expect to pay a higher premium for this facility than hitherto. A further handicap, it is worth pointing out, is placed on the efforts of dealers to maintain the prestige and activity of London as a drug market.

"Thorough-going Cacography"

WHILE reading the greater part of a letter which appeared under the title "Cacography" in the "Observer" of December 30, 1951, we were unable to shake off the impression that the writer's pseudonym, "Squiggle, M.R.C.S., L.R.C.P.," concealed a pharmacist, despite the fact that there seemed no reason why a self-respecting pharmacist should disguise himself under the cloak of a medical alias. Yet who else could have explained to laymen so succinctly and cogently the pharmacist's discipline and responsibility?

"No chemist of any repute would make up 'roughly what the doctor orders' [the writer of the letter was himself quoting words written by Ivor Brown in an earlier issue of the paper], nor would he 'make a harmless shot at it.' There is a body of highly qualified blokes who justify their existence by regular checks on dispensing; and 'rough estimates' and 'harmless shots' would soon spell out to such chemists as indulged in them." Never did the public relations officer of the Pharmaceutical Society, if he still functions, write to better purpose.

Dr. Squiggle's later paragraphs, however, dispel the impression. He writes, "there is actually a course ending in an examination which chemists have to take before qualification in the art of deciphering such 'cacographic' writing." Clearly he is unaware that leading pharmacists in recent months have been prompted to offer to provide actual prescriptions for the benefit of students, so that they should not have to encounter them for the first

time in the examination room. It may be that the example given by Dr. Squiggle (of sacch. ust. q.s. added "to disguise disgusting and bitter flavour") is not good one, but there is nevertheless a case for the continued existence of a "thorough-going cacography" intelligible to compounders but deliberately concealed from patients. The protagonists of English titles in pharmacopoeias and formularies might do well to ponder that their policy may not end with titles. They may be endangering a generation of prescribers who know no Latin, and whose only hope of concealment from the patient lies in making their handwriting even more illegible than it is at present, with the risk that it may not be deciphered by the pharmacist any more easily than by the layman.

Another View on H11*

IN the "Medical World" (1951, 75, 4661), the organ of the Medical Practitioner Union, Ward claims that "a new era" in the use of H11 in the treatment of cancer has begun, and tabulates general information on 173 cancer patients who were "successfully treated" with the preparation "after all other methods of treatment had proved useless." Recent progress in H11 therapy, he states, include the elaboration of a test for controlling dosage, and the isolation of a crystalline principle that has been put up as tablets. The test is based on the fact that "the presence of malignant growth produces identifiable changes in the blood serum." Trials indicate that the oral route is likely to prove more active than the subcutaneous. "Some very interesting but complex biochemical investigations have pointed to a like cause for the failure of subcutaneous action." The use of H11 can start as soon as the disease is diagnosed, but that treatment should not preclude other treatment. The author points out that the preparation can be obtained on forms EC10, but details of the case and a blood test are necessary before it can be delivered.

*A preparation of unknown composition prepared for the treatment of cancer by Hosa Research Laboratories, Ltd., Sunbury-on-Thames, 1948 a committee of the Medical Research Council found that there was no justification for issuing it to patients, though further experimentation might be justified.

C. & D.
REFRESHER COURSE
 for Pharmacists

Compiled by
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6.—THE PREPARATION OF STERILE MEDICAMENTS

"You've no right to grow here," said the Dormouse.

ALICE IN WONDERLAND

THIS article is addressed particularly to pharmacists who are trying to provide themselves with the knowledge and equipment necessary for dispensing sterile preparations.

Sterility can be produced by dry heat, moist heat, heat in the presence of a bactericide (a substance which kills bacteria), filtration through a bacteria-proof filter, or aseptic technique. (Filtration will not be discussed as it is rarely practicable in a retail pharmacy because it requires special precautions, including sterility tests on the final products.) Heat sterilisation is reliable and is used whenever possible, but some medicaments such as salts of penicillin and streptomycin, barbiturates and organic arsenicals cannot be heated in solution without decomposition. In these cases aseptic technique is used for processing. The next article will be devoted to this method.

Bacteria and their spores are killed by: (a) Dry heat at 150° C. for one hour; (b) moist heat at 115.5° C. for thirty minutes; or (c) moist heat at 98° to 100° C. for thirty minutes in the presence of certain bactericides. The three official methods of sterilisation involving the use of heat are based on those three facts.

Dry Heat Method

Dry heat is used in the form of hot air in a gas or electrically heated oven which should allow quick and even heating and rapid cooling. It is suitable for oils, fats and powders, and apparatus of glass, metal, or porcelain, provided that the following points are carefully observed:—

(a) The temperature must be efficiently controlled as some medicaments decompose or melt at slightly above 150° C. (e.g., sulphanilamide).

(b) Glassware must first be thoroughly washed in a hot detergent solution to remove surface grease which would delay heat penetration.

(c) Apparatus, except closed containers, must be wrapped in paper before sterilisation to prevent contamination when the oven is opened.

(d) Certain dusting powders (e.g., starch, sulphonamides) cake if not carefully dried before sterilisation (heating to 100° C. for thirty minutes is usually satisfactory for drying).

(e) Apparatus made of different materials cemented together (e.g., wood-composition pestles and some glass-metal syringes) should not be sterilised by this method because the cement may melt.

(f) Oils and fats are often dirty and should be filtered through dry paper before or during sterilisation. The Pharmacopoeia requires the injections of the sex hormones, the base for oily injection of penicillin, the sulphonamide powders and glassware, for example, to be sterilised by dry heat. Dry heat should not be used for rubber and fabrics, which it quickly destroys.

Moist Heat Method

Moist heat is more efficient than dry because its penetrating power is greater. Therefore it is effective at a lower temperature and in a shorter period of time. It can be used for many official injections, which would be decomposed by the dry heat method; for degreased glassware, and for most other apparatus including rubber. Wrapping is necessary, as for dry heat, and the most suitable wrapping material to use is transparent cellulose tissue. The apparatus used is an autoclave in which the required temperature is obtained by steam under pressure. As the important factor in sterilisation is temperature and not pressure, it is better to use a thermostatically controlled autoclave than a pressure-recording type. The latter is less satisfactory because steam has a definite temperature at a definite pressure (i.e., 10 lb. on the gauge will correspond to

115.5° C.) only if there is no air present in the apparatus. Therefore all the air must be blown out of the apparatus before use by allowing steam to issue from a vent for about five minutes. With the thermostatically controlled type this is unnecessary as mixtures of air and steam at 115.5° C. have the same sterilising efficiency as steam alone at the same temperature.

Heating with a Bactericide

Certain important medicaments cannot be sterilised by the dry or moist heat methods because they are too heat sensitive, and so a method has been introduced which uses the relatively low temperature of boiling water. It depends on the fact that increased temperature increases the efficiency of bactericides. By including a suitable bactericide in the solution and heating for half an hour at 98° to 100° C., sterility can be obtained. The Pharmacopœia uses 0.2 per cent. of chlorocresol or 0.002 per cent. of phenylmercuric nitrate because these substances, in these concentrations, have very low toxicity and are stable to heat and variations of pH and storage conditions.

Sterilisation is carried out in a steamer or in a beaker of boiling water covered with a watch glass, the latter serving to keep an atmosphere of steam around parts of the containers above the surface and so ensuring exposure to the correct temperature. The simplicity of the method makes it practicable in any dispensary, but it must not be substituted for autoclaving where this is officially prescribed, because official policy is to avoid additions (e.g., bactericides) wherever possible. Because the bactericides are sparingly soluble it is useful to keep stock solutions in screw-capped or glass-stoppered bottles.

The method cannot be used for oily injections (as the bactericides are less effective in oily solution); or for intraspinal injections (because the bactericides might inflame the linings of the central nervous system), or for intravenous injections of greater volume than 15 mils (because a toxic dose would be given). In addition, each bactericide has a few incompatibilities, which are listed in standard textbooks.

In all heating methods extra time must be allowed for the heat to penetrate to the centre of large volume containers. This applies to volumes greater than 100 mils when autoclaving, and 30 mils when using dry heat or heating with a bactericide.

Water for Injection

Because certain bacteria produce fever-causing substances known as pyrogens which cannot be destroyed by the normal heat-sterilisation methods it is important to use a method for preparing water for injection which will exclude them. As they are non-volatile distillation is suitable provided that drops of water, which might contain pyrogen, are prevented from splashing over into the receiver. Therefore the still must be fitted with an efficient splash-head or be suitably baffled. Distilled water prepared in this way must be *immediately* sterilised to prevent contaminants which have entered the receiver during distillation from developing and producing more pyrogen.

Clarification of Solutions

Foreign particles should be absent from injections but their removal is often difficult and "prevention is better than cure." By using scrupulously clean, washed and drained glassware, avoiding the use of dusters and glasscloths as far as possible, minimising movement and keeping open apparatus covered with watchglasses or cellulose film discs, clear solutions may be obtained. Filtration should be through a No. 3 sintered glass filter as, unlike paper and wool, this will not shed "bits." For small volumes, filtration by gravity gives much better results than vacuum filtration. Stored caps (see below) are frequent sources of contamination and before use should be well rinsed in a solution similar to that in which they have been stored.

Containers

Medicaments used for sterile products should be stored in dust-proof containers; these have stoppers with a flange which overlaps the neck of the bottle and protects it from dust. Single-dose injections of small volume are packed in ampoules, while for those of large volume (perfusor fluids), the Medical Research Council type of blood bottle is widely used. This type is strong and therefore very serviceable and it can be fitted easily into the standard hospital perfusion unit.

The Clinbritic vaccine bottle is the container of choice for multiple dose injections. This was first described by Professor H. Berry and accounts are given in standard textbooks. All multi-dose injections must contain a substance which will prevent the growth of micro-organisms accidentally introduced during the with-

drawal of successive doses. Such substances are known as bacteriostatics and suitable examples are given in the Pharmacopœia. Two of the most common are chlorocresol 0.1 per cent. and phenylmercuric nitrate 0.001 per cent. It will be noticed that the bacteriostatic strengths of these are half of their bactericidal strengths. Bacteriostatics are unnecessary if the medicaments have bacteriostatic powers themselves (as with injection of quinine and urethane B.P.) and they may not be included in intravenous injections of more than 30 mils for the reason given earlier. Rubber caps for multi-dose containers may absorb bacteriostatics, bactericides, and the antioxidant sodium metabisulphite from injection solutions. This may result in loss of sterility or, in the case of the antioxidant, decomposition. Therefore caps should be saturated by storage in suitable strengths of solutions of these substances until required for use. Details are given in the Pharmacopœia. For medicaments sensitive to pH changes the containers must comply with the offi-

cial limit test for alkalinity of glass, while for light-sensitive substances protection must be given, preferably by using containers of amber glass. The Pharmacopœia indicates when that must be done.

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Sterilisation, Use and Care of Syringes, M.R.C. War Memorandum No. 15. H.M. Stationery Office.

REVISION QUESTIONS

1. Why cannot oils, fats and powders be sterilised by autoclaving?
2. Strong injection of procaine and adrenaline B.P. is prepared by heating at 98° to 100° C. for thirty minutes, yet it contains only 0.1 per cent. of chlorocresol. Suggest an explanation for this.

(Answers on p. 64).

LEVERKUSEN REVISITED

By Harold Lomax

Collins
A STI was proposing to revisit Germany, I thought "Why not visit Leverkusen?" I had heard various reports of the damage done to the works, so decided to investigate for myself. Rather to my surprise I found a busy community with full-scale work going on as before the war. It appeared that only minor war damage was suffered by the Leverkusen works, and this has now been repaired. Whether by good fortune or by design, the company was left to carry on the manufacture of its pharmaceutical, veterinary and dental specialities, fine and heavy chemicals, dye-tuffs, inorganic pigments and agricultural products.

The company was ordered by the Allied Authorities to carry on but to put all profits back into the business. The result has been that, whereas the number of employees in 1945 was 12,500 nearly 18,000 are now employed. From chemicals, drugs and medicines, the business has entered the field of rayon manufacture, and has built a large synthetic fibre plant at Dormagen, between Leverkusen and Elberfeld. The works and the research laboratories at Wuppertal-Elberfeld are functioning at full capacity, and extensions and improvements are going on all the time. The interests of the former I.G. Farbenindustrie A.G. in

the Russian zone have been lost, as have the interests and branch companies in other countries, such as England and America.

Recent achievements of the research laboratories include the sulphonamides Supronal and Marbadal, both developed by Domagk, who discovered Prontosil in 1935. Another new product is Periston plasma substitute, synthesised in the Bayer Laboratories, and introduced into Britain and America as PVP (polyvinyl pyrrolidone) which is a present under clinical investigation in these countries. In the chemotherapy of tuberculosis has been introduced Conteben, the original thiosemicarbazone preparation (not available as yet in Britain). A feature of Conteben is its usefulness in the treatment of leprosy.

Export Licensing Regulations. — The Export of Goods (Control) Order, 1951 (S.I. 1951, No. 1053), obtainable from H.M. Stationery Office, supersedes the Export of Goods (Control) (Consolidation) Order, 1950, and amending orders. Subsequent amendments to the 1951 Order are published as the following Statutory Instruments: 1951, No. 1060; 1951, No. 1353; 1951, No. 1476; 1951, No. 1840. [Corrected note].

MEDICAL RESEARCH 1948-50

The increased size and scope of the work of the Medical Research Council has necessitated a change in the presentation of the Council's report (the report for 1948-50 was recently published) to keep it within reasonable compass. The latest report summarises the work and gives references to the more detailed reports which have been published on separate subjects. The Council is to continue to review certain aspects of its research in the report and it plans to discuss each section of the field covered once in five years at most.

Administrative Changes

The years 1948 to 1950 have seen notable changes in the Council's administration, including the retirement of Sir Edward Mellanby from the secretaryship in September 1949, and the removal of the National Institute for Medical Research to Mill Hill, London, in 1950 (see *C. & D.*, 1950, II, 747). The new facilities at Mill Hill have made possible expansion in chemotherapeutic research in both the chemical and biological aspects. That research will continue to be one of the most prominent parts of the Council's programme.

In its battle against tuberculosis, the Council, the report reveals, is testing a vaccine containing a strain of tubercle bacillus discovered in voles some years ago by a member of the Council's scientific staff in Oxford. It is thought that the vaccine is more stable than BCG. It is hoped that studies already engaged upon may provide fundamental information on how the body may resist tuberculosis. Already it has been found that large doses of cortisone aggravate tuberculosis in experimentally infected mice, and diminish guinea-pig tissue-responses to the proteins of the bacillus. Thyroxin increases that response. Work on the influenza virus with the use of an electron microscope has given "entirely new ideas" of the possible life or modes of multiplication of that type of virus. It has confirmed with pictures facts which formerly had only been inferred indirectly.

In the study of the common cold use of fluorescent material has shown that the quantity of oral and nasal secretions transferred from person to person by direct contact was much greater than that transferred through air. An attempt to reduce the danger of personal contact by the use of self-sterilising, impregnated handkerchiefs showed that that measure by itself

was insufficient. The Council have set up a committee to study the association between inoculation against diphtheria or diphtheria and whooping cough, and the incidence of poliomyelitis.

On behalf of the Expert Committee on Biological Standardisation of the World Health Organisation the department of biological standards at the National Institute for Medical Research has continued as a world centre for the distribution of twenty-one international standards of drugs. It also has continued to distribute twenty other biological standards. It has been actively concerned, in particular, with the replacement of the old international standards for vitamins A and D, sulpharsphenamine, digitalis and androsterone; has started to replace the insulin and penicillin standards; has made new standards for streptomycin, provitamin A, the adrenocorticotrophic hormone (ACTH) and (in collaboration with the Lister Institute of Preventive Medicine) anti-A and anti-B blood groupings sera. It has also started work on new standards for scarlet fever antitoxin, vitamin B₁₂, and (with the Public Health Laboratory Service) on sera for the laboratory identification of salmonella bacilli. British standards for globin zinc insulin, dihydrostreptomycin, *d*-tubocurarine, dimercaprol, hyaluronidase and oxophenarsine (a joint Canadian-British standard) were established. Except for the first three, the standards are being considered for international adoption. The British *d*-tubocurarine standard has already become an international standard. Members of the department have helped substantially with the work of the British Pharmacopœia Commission and of the Expert Committee on the unification of Pharmacopœias of the World Health Organisation.

Studies of Biological Activity

Radioactive isotopes have been used to investigate the formation of red blood-cells. Proteins which have some specific and essential function in the body (for example, insulin ACTH or the parathyroid hormone and bacterial toxins) have been studied in order to explain their biological activity chemically and so, where appropriate, to show the way to the synthesis of simpler compounds having similar activities. While the department of Research in Industrial Medicine has found no evidence that crops may be contami-

ated with dinitro-orthocresol and para-nitro to a degree likely to affect the health of the consumer, continuing vigilance will be necessary, the report states, as new agricultural chemicals come into use.

Radioisotopes in Cancer

The Radiotherapeutic Research Unit, working at Hammersmith Hospital, London, has investigated the therapeutic application of radioactive isotopes to thyroid cancer treatment and the treatment

of polycythaemia and the reticuloses by radioactive phosphorus, etc. Among the activities studied by the Animals Bureau (under Dr. F. G. Dyer) is the collection of information on the production of experimental animals in Great Britain and their supply and use in laboratories; the introduction of a scheme of accrediting breeders of guinea-pigs, mice and rabbits intended for laboratory use, and the preparation of catalogues of invertebrates of medical and veterinary interest.

DEXTRAN AND OTHER BLOOD ANTICOAGULANTS

THE fine chemicals group of the Society of Chemical Industry met in London recently, under the chairmanship of Dr. F. Bergel, to hear a paper entitled "Blood Anticoagulants with Special Reference to Dextran Sulphate" by Drs. C. A. Ricketts and K. W. Walton (department of pathology, University of Birmingham). The paper, which was read by Dr. RICKETTS, pointed out that Dextran sulphate, like heparin, acts by inhibiting the enzyme thrombin, which converts fibrinogen into a fibrin coagulum. Heparin is the sulphuric ester of a polysaccharide composed of glucuronic acid and glucosamine. The molecules vary in size, chemical composition and biological activity. Numerous sulphuric esters of other polysaccharides, among them dextran sulphate, exhibit anticoagulant activity. Compounds showing activity are easily prepared but have hitherto proved too toxic for therapeutic use. From investigation into the underlying cause of toxicity in sulphuric esters of dextran, there has emerged a form of dextran sulphate suitable for therapeutic use. Sulphate groups can be introduced into the dextran molecule by the use of chlorosulphonic acid and pyridine. Toxicity, in the form of a greatly increased tendency to haemorrhage, has been found to be associated with the larger dextran sulphate molecules. In the bloodstream large molecules precipitate fibrinogen, to which platelets adhere. The whole mass is removed by phagocytes and deposited in cells of the reticuloendothelial system in the liver and other tissues. Loss of fibrinogen and platelets increases the tendency to haemorrhage. The smaller molecules of dextran sulphate (molecular weight about 1000) are not toxic in that way. A ratio of 1.0 to 1.3 sulphate groups per glucose it has been found to give a maximum activity of 15 international units per mgm.

Extensive testing in five species has established the high therapeutic index of low-molecular-weight dextran sulphate. The similarity between heparin and dextran sulphate in the intensity and duration of their action has recently been confirmed in man. The feature that makes the least active heparin molecules more active than their synthetic counterparts remains elusive.

Questions Answered

In discussion on the paper DR. WALTON informed DR. BERGEL that the action of dextran sulphate was different from that of the dicoumarins, but, like heparin, it inhibited the action of thrombin. DR. RICKETTS said that dextran sulphate was substantially pyrogen-free, as it was prepared from pyrogen-free dextran. To DR. F. HARTLEY he said that dextran sulphate, like heparin, was reversed by protamine sulphate. DR. WALTON told MR. L. E. MARTIN that dextran sulphate had been given intravenously to human patients. DR. G. E. FOSTER referred to the one-time use of hirudin as an anticoagulant and said that the nature of that substance was still unknown. DR. F. A. ROBINSON was told by DR. RICKETTS that sulphated pectic acid had anticoagulant activity, but not of the heparin type. MR. J. M. WHITMARSH referred to the structural differences between dextran sulphate and heparin as a possible explanation for their difference in activity.

Prime Question of G.P.'s.—"The idea of a College of General Practitioners is splendid . . . I think I know the sort of questions that the examining board of the new College would ask . . . 1. For what conditions is vitamin therapy recommended by the manufacturers? Give references to recent blotters."—A *Peripatetic Correspondent* in the "Lancet."

GUIDE TO NEW MEDICAMENTS

Information about new proprietary medicaments to be supplied principally on prescription. Editorial recommendation is not implied. Reprints obtainable on application.

VALOXYLIN

MANUFACTURER: Oxo, Ltd. (medical department), Thames House, London, E.C.4.

DESCRIPTION: Whole liver extract reinforced with vitamin B₁₂.

INDICATIONS: Pernicious anaemia with or without neurological manifestations and macrocytic anaemias which respond to liver therapy.

DOSAGE: 1 c.c. of Valoxylin 50 (see below) weekly until the blood picture becomes normal. Then 1 c.c. monthly should suffice. In certain resistant cases it may be necessary to use Valoxylin 100 (see below) initially.

How SUPPLIED: Valoxylin 50 (Oxoid whole liver extract reinforced with 50 microgm. of vitamin B₁₂ per c.c.) and Valoxylin 100 (which has an extra 50 microgm. of vitamin B₁₂ per c.c.), in 1 c.c. ampoules in boxes of six, twelve and fifty; and in bottles of 10 and 20 c.c.

STENEDIOL

MANUFACTURER: Organon Laboratories, Ltd., Brettenham House, Lancaster Place London, W.C.2.

DESCRIPTION: Methylandrostenediol (17(α)-methyl- Δ^5 -androstene-3(β),17(β)-diol).

INDICATIONS: Wasting or negative nitrogen balance as in retarded growth, spinal para plegia, decubitus ulcer, craniotomy (pre-operative), malignant disease, hyper thyroidism, etc.

REFERENCE IN THE MEDICAL PRESS: Henderson, E., and Weinberger, M. "Journal of Clinical Endocrinology," 1951, II, 641.

DOSAGE: *Adults*: One tablet (see below) thrice daily. *Children*: One tablet thrice weekly. Treatment every third week omitted.

How SUPPLIED: Oral tablets each containing 10 mgm. in tubes of twenty-five and bottle of 100, 250, 500 and 1,000.

NOTE: The substance is claimed to have no virilising effect in the recommended dosage.

DROMORAN

MANUFACTURER: Roche Products, Ltd., Welwyn Garden City, Herts.

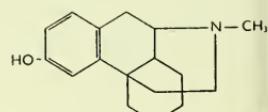
DESCRIPTION AND FORMULA: Methorphinan (approved name), 3-hydroxy-N-methyl morphinan.

INDICATIONS: Severe, acute pain, as in coronary thrombosis; renal, biliary or intestinal colic, etc.; severe nerve pain in trigeminal neuralgia, tabes, etc.; for continuous treatment of intractable pain in the terminal stage of inoperable neoplastic disease; pre- and post-operative medication; for pain caused by injury.

DOSAGE: For moderately severe pain: 1.5 to 3.0 mgm. orally once or twice daily. For very severe pain: 2 to 4 mgm. given once or twice daily by subcutaneous or intramuscular injection. It may be advisable to give the drug by mouth during the day, reserving parenteral administration for use at night or at times when the pain is more severe. Precautions: Since the preparation may cause addiction, it is not recommended for the treatment of minor painful conditions. Like morphine it should be administered with caution to the very young, to the aged and to patients with head injuries.

How SUPPLIED: Tablets, each containing 1.5 mgm., in packings of twenty and 20 ampoules, each containing 2 mgm. in 1 c.c. in packings of six and fifty.

NOTE: The preparation comes under the Dangerous Drugs Act and Regulations.



TRADE REPORT

Spot quotations for pharmaceutical chemicals represent the prices for wholesale quantities of standard quality. Prices of crude drugs and essential oils vary as to brand or grade.

LONDON, JANUARY 9

TRADING in the all the markets during the past week was again quiet, mainly, so far, because of holiday conditions. Unless unforeseen circumstances intervene, merchants expect little revival before April's budget, when the future of excess profits tax will be clarified. Several importers who have hitherto obtained bank credits to purchase drug consignments on a speculative basis now find that the banks refuse the necessary finance (see page 51). Spot supplies of imported drugs and oils may, therefore, tend to become less and less.

In the PHARMACEUTICAL and FINE CHEMICALS market only one price change, that of RESORCIN (1s. 3d. per lb, dearer), is reported. Following last week's announcement that SODIUM THIOSULPHATE and SODIUM SULPHATE had advanced, two more photographic chemicals, METOL and HYDROQUINONE, have been marked up by one shilling and by ninepence per lb, respectively. The Ministry of Supply on January 1 advanced the price of virgin ALUMINIUM by £24 per ton; the salts can therefore be expected to rise shortly.

In the CRUDE DRUGS market AGAR is firm on the spot and supplies are rather short. Shipment prices are slightly dearer. There has been a better demand for prime Cape ALOES, and prices are steady. Though there has been a good inquiry for CASCARA SAGRADA, little business has been reported. PECAUCANIA remains a firm market; little Nicaraguan is available for immediate shipment. Spot supplies of Brazilian MENTHOL are short, but ample Chinese material is available. Because the Canadian dollar has improved in value there has been no onward inquiry for SENEGA as the prices quoted now are higher than those ruling or spot supplies. All grades of SHELLAC have been reduced by 5s. per cwt, and most of the WAXES show a weakening tendency. There were few major changes in the ESSENTIAL OILS market. English distilled LOVE advanced sharply by about 25 per cent.

The International Materials Conference in Washington has stated that its sulphur committee hopes to make an announcement within a few days on the sulphur allocation to members for the first quarter of the year.

U.S. Drug and Chemical Report

NEW YORK, JANUARY 8

DETERMINED efforts are being made to boost the production of PHENOL (see p. 62). CARBON DISULPHIDE was priced higher during the week owing to tight supply and strong demand. Whilst OXALIC ACID is

lower there has been a general advance in TARTRATES; TARTARIC ACID is now 45½ cents per lb. (up 6 cents), in 10,000 lb. lots, and CREAM OF TARTAR is up by 5 cents per lb. Technical SALICYLIC ACID has risen 2 cents per lb. Priced lower are Brazilian MENTHOL which at \$8.65 per lb. is 10 cents down; VANILLIN and the following ESSENTIAL OILS:—Ceylon CITRONELLA, ANISE and SAGE.

Exchange Rates on London

Rates at the opening on Wednesday morning were:—

Centre	Quoted	Rate
*Alexandria ...	Piastras to £	97½-97¾
Amsterdam ...	Florins to £	10.50-10.72
*Bombay ...	Shillings to rupee	1/51½-1/61½
Brussels ...	Francs to £	139-141
Copenhagen ...	Kroner to £	19.32-19.36
Dutch West Indies	Florins to £	5.24-5.32
*Hong Kong ...	Shillings to \$	1/21½-1/3½
*Israel ...	£1 to £	99½-100½
*Karachi ...	Shillings to rupee	2/127-2/115
Lisbon ...	Escudos to £	79.90-81.10
*Montreal T.T. ...	Dollars to £	2.8½-2.8½
New York T.T. ...	Dollars to £	2.78-2.82
New York M.T. ...	Dollars to £	2.79½-2.80½
Oslo ...	Kronor to £	19.98-20.02
Paris ...	Francs to £	972-988
*Singapore ...	Shillings to \$	2/4½-2/4½
Stockholm ...	Kronor to £	14.47-14.50
*Teheran ...	Rials to £	89.40-91.00
Zurich ...	Francs to £	12.22-12.24

*Free market rates; remainder Bank of England.

Pharmaceutical Chemicals

ACETANILIDE.—1-cwt. lots are 2s. 11d. per lb. for crystals and 3s. per lb. for powder. •

ACETONE.—Prices for under 1-ton lots are from 110s. per cwt.

AMPHETAMINE.—BASE is from 65s. to 68s., and SULPHATE from 56s. to 59s. per lb., as to quantity. *d*-AMPHETAMINE is from 650s. to 700s. per kilo.

ATROPINE.—Rates per oz. are: ALKALOID, 58s. 9d.; 4-oz., 58s. 3d.; 25-oz., 57s. 9d. SULPHATE, 48s. 9d.; 4-oz., 48s. 3d.; 25-oz., 47s. 9d. METHYL NITRATE in 4-oz. lots is 78s. 6d. and METHYL BROMIDE, 76s. 6d. per oz.

BARBITONE.—Current rates per lb. are: 1-cwt. lots, 39s.; 28-lb., 40s.; 7-lb., 41s. The SODIUM derivative is 1s. per lb. more than the base.

BARIUM SULPHATE.—1-cwt. lots of B.P. (*x-ray*) are 1s. 5d. per lb. Scheduled rates per lb. (containers in brackets) for quantities between 28-lb. and 1-cwt. are as follows:—1s. 8d. (28-lb.); 1s. 9d. (14-lb.); 1s. 9½d. (7-lb.); 2s. (1-lb.).

HYDROQUINONE. — Quotations for 1-cwt. lots are 11s. per lb. For smaller quantities, viz., 28-lb., 11s. 3d.; 14-lb., 12s.; 7-lb., 12s. 6d.

LACTATES. — **CALCIUM**, B.P., is 3s. 0½d. per lb. in 1-cwt. lots; 28-lb., 3s. 4½d.; 7-lb., 3s. 8½d. per lb. **CALCIUM SODIUM**, B.P.C., for the same quantities is 4s. 8½d., 5s. 0½d. and 5s. 4½d. per lb. **LACTIC ACID**, B.P., in 12 winchester lots is 4s. 6½d., 6 winchesters, 4s. 10d. and 3 winchesters, 5s. per lb. Carboys are 4s. 5d. per lb.

MANDELIC ACID. — 1-cwt. lots in 28-lb. containers are 10s. 9d. per lb. The **CALCIUM SALT** is also 10s. 9d., while **SODIUM** is 11s. 3d. per lb., for 1-cwt. lots.

MERCURY DERIVATIVES. — Nominal quotations (per lb.) for 1-cwt. lots are: **AMMONIATED**, B.P., lump or powder, 21s. 9d.; **PERCHLORIDE**, B.P., powder, 19s. 6d.; **CHLORIDE**, B.P. (calomel), 22s. 6d.; **OXIDES**, B.P.C. levigated, or yellow B.P., 24s.

METOL. — In 1-cwt. lots the price is 24s. 6d. per lb.; 28-lb., 25s. 6d.; 14-lb., 27s.; 7-lb., 28s.

POTASSIUM NITRATE. — Pharmacopœial quality is 145s. per cwt. (crystal, granular or powder) and commercial, 90s.

RESORCIN. — Advanced. Price per lb. for 28-lb. - 56-lb. lots is about 15s. 6d.

ROCHELLE SALT. — Rates (per cwt.) for powder or granulated material are as follows: — In 5-cwt. lots, 220s. per cwt.; 1-cwt., 222s. 6d. per cwt. Smaller quantities are from 2s. 5d. to 2s. 8d. per lb. **SEIDLITZ POWDER**, ordinary strength is 171s. 3d. per cwt. in 1-cwt. lots; smalls, from 2s. to 2s. 3d. per lb. Extra-strong is 185s. 3d. per cwt. and 2s. 1d. to 2s. 4d. for small quantities.

SALOL. — In 1-cwt. lots the price is 9s. per lb.; 28-lb., 10s. 6d.

SODIUM SALICYLATE. — Rates are: 1-ton lots in bulk, 3s. 5d. per lb.; 5-cwt., 3s. 5½d.; 1-cwt., 3s. 6d. Scheduled rates in the home market for 28-lb. and under 1-cwt. are from 4s. 1d. to 4s. 5d. per lb., as to pack.

TANNIC ACID. — Home-trade rate for Levis, B.P. (ex ether) in 1-cwt. lots is 8s. per lb.; B.P. powder is quoted at 8s. 3d. per lb. for the same quantity.

TARTARIC ACID. — Rates for the home trade are as follows: — 10-cwt. lots, 310s. per cwt.; 5-9-cwt., 312s.; 2-4-cwt., 314s.; 1-cwt., 315s.

TEREBENE. — For 1-carboy lots, 4s. 2d. per lb. is asked. In winchesters, prices are from 4s. 3½d. to 5s. 2d. per lb.

TERPIN HYDRATE. — Prices are from 7s. 6d. to 8s. per lb., as to quantity.

TERPINEOL. — Prices of B.P. grade are from 4s. per lb. upwards as to quantity.

ZINC SULPHATE. — 1-cwt. lots are quoted at 1s. 4d. per lb.; 28-lb., 1s. 7d.

Crude Drugs

ACONITE. — Spanish *napellus* is 3s. 9d. per lb., duty paid, ex wharf.

AGAR. — Firm, Kobé No. 1 on the spot is quoted at 9s. per lb., duty paid. Forward offers are 8s., c.i.f.

ALOES. — Prime Cape on the spot is about 215s. per cwt. and forward offers are up to 203s., c.i.f., for prompt shipment. Curaçao is 425s., c.i.f.

ANISE (STAR). — Offers from origin are about 300s. per cwt., c.i.f.

BALSAMS. — *Canada* is unchanged at about 30s. per lb. on the spot. *Copaiba*, Maranham, on the spot is 17s. per lb., duty paid. *Peru* is quiet at 18s. 9d. per lb., duty paid, and 15s., c.i.f., for shipment. *Tolu*, natural, forward offers are from 32s. 6d. to 35s. per lb., c.i.f., as to shipper. B.P. quality is unchanged at 32s. 6d. per lb. on the spot.

BAY LEAVES. — Quotations are 60s. per cwt., ex bond, London.

BELLADONNA. — **ROOT** is from 3s. 3d. to 4s. 4d. per lb. on the spot, duty paid according to test. **LEAVES** are upwards of 5s. 6d. per lb. as to test.

BENZOIN. — Unchanged. No. 1 Sumatra block on the spot is quoted at from £27 10s. per cwt.; for shipment, £25 15s., c.i.f. Siam almonds (medium bold) are 37s. 6d. per lb., spot.

BUCHU. — Steady. Short round leaves at 2s. 1d. per lb. on the spot.

CAMPHOR. — Chinese (B.P.) powder on the spot is from 4s. 9d. per lb. in bond (5s. 3d., duty paid); ½-oz. tablets are quoted at 6s. 4½d. per lb., duty paid, 2½-lb. slabs, 5s. 9d. per lb., duty paid.

CAPSICUMS. — Abyssinian are 120s. per cwt. on the spot and Nigerian, 210s., duty paid.

CARDAMOMS. — Aleppy greens, a parcel afloat is quoted at 21s. 6d. per lb., c.i.f. February - March shipment offers at 17s. 6d. per lb., c.i.f. Spot supplies are 24s. 6d. per lb. Aleppy seeds, No. 1, on spot, 34s. 6d.

CASCARA SAGRADA. — Unchanged. New-peel American bark is from 330s. to 345s. duty paid. 1950 bark is available at from 355 per cwt., duty paid.

CASSIA BARK. — Whole, for January shipment is 118s. 6d. per cwt., c.i.f. Spot supplies are 125s. per cwt., ex warehouse.

CHAMOMILE FLOWERS. — Belgian (standard quality) is about 4s. per lb., on the spot.

CHERRY BARK. — Thin cut natural is quoted at 2s. per lb., duty paid, ex warehouse, London.

CHILLIES. — Sierra Leone on the spot are quoted at 275s. per cwt.; for shipment 235s., c.i.f.; East African (Mombasa 325s., ex warehouse; for shipment 310s., c.i.f.

CINCHONA. — *Succirubra* chips of East and West African origin testing over 6 per cent. are quoted at 1s. 9d. per lb.

CINNAMON. — For shipment (c.i.f.): 000, 2s. 9d.; 000, 2s. 8½d.; 00, s. 7d.; 0, 2s. 6½d.; firsts, 1s. 11d.; seconds, 1s. 11d.; thirds, 1s. 10d.; quillings, 1s. 7d.; featherings, 1s. 1½d.; hips, 5½d. per lb.

CLOVES. — Unchanged. Zanzibar on spot, quoted at 5s. per lb.; for prompt shipment, s. 11d. c.i.f.

COCHINEAL. — Firm. Black is 8s. 2d. per lb. and silver grey from 7s. to 7s. 9d.

COLCHICUM. — Quiet. Corms on spot are offering at from 2s. 3d. to 3s. 6d. per lb.; seeds: forward offers at 6s. per lb., duty paid.

COLOCYNTH. — Pulp on the spot is from s. 9d. to 2s. per lb., duty paid.

ERGOT. — Forward quotations of Portuguese are about 47s. 6d. per lb., c.i.f. Spot offers are a shade under 50s. per lb.

GALANGAL ROOT. — For spot supplies, 30s. per cwt., ex wharf, is asked. Forward quotations are about 87s. 6d. per wt. c.i.f., London.

GINGER. — African on the spot is 32s. 6d. per cwt. New-crop February-April shipment, 187s. 6d., c.i.f. Jamaican in the spot is from 450s. to 480s. per cwt., to quality.

IPECACUANHA. — Forward offers are: Columbian, 54s. 6d. per lb.; Nicaraguan, 9s. 6d., both c.i.f. January shipment. Spot prices of Columbian are 57s. 6d. per lb., and Nicaraguan, 62s. 6d., c.i.f.

KOLA NUTS. — African halves on the spot in London are from 5d. per lb.; to come forward, 4½d., c.i.f.

KRAMERIA. — Spot is 120s. per cwt.; for shipment, 107s. 6d., c.i.f.

LANOLIN. — Unchanged. B.P. anhydrous £175 per ton and hydrous, £150.

LIQUORICE. — Anatolian natural whole root on spot in London is quoted at 52s. 6d. per cwt.; Syrian, natural, is 42s. 6d. Turkish block juice quotations are from 70s. upwards, according to holder, duty paid. Turkish stick is 180s. per cwt., duty paid; Italian stick, 475s. per cwt., duty paid.

MACE. — West Indian pale blade is 3d. per lb.; for shipment, 8s. 8d., c.i.f.

MASTIC. — Quotations for tears (No. 2) are from 12s. 6d. per lb., spot.

MENTHOL. — Chinese is easier at 78s. per lb., duty paid. Brazilian is 77s., duty paid, nominal, and 70s., c.i.f. April-May shipment. Synthetic detached crystals, 60s. per lb. for 60-lb. case lots.

MERCURY. — Spot quotations are from 73 5s. to £73 10s. per flask, ex warehouse.

NUTMEGS. — West Indian 80's, quoted at 4s. 3d. per lb. on the spot and 3s. 8½d., c.i.f. for shipment. East Indian for shipment, are quoted at from 3s. 7½d., c.i.f.

ORANGE PEEL. — Firm. Spanish bitter quarters, 1s. 4d. and 1s. 10d. as to source; sweet ribbon, 1s. per lb., duty paid.

ORRIS ROOT. — Offers of Florentine are at 155s. per cwt., ex warehouse.

QUILLIAIA. — Whole bark on spot is 150s. per cwt., and 134s., c.i.f., for shipment. Cut bark is offered at 170s. per cwt., ex warehouse.

SANDARAC. — New-crop is now available on the spot at 16s. per lb.

SARSAPEARILLA. — Jamaican native red is about 2s. 7½d. per lb. on the spot and 2s. 3d., c.i.f.

SEEDS. — **ANISE.** — Cyprus is 157s. 6d. per cwt.; Turkish, 150s., in bond, and 160s. per cwt., duty paid. **CARAWAY.** — Dutch is in poor demand at 122s. 6d. per cwt., duty paid. **CELERY.** — Indian sold at 1s. 10½d. per lb., spot London. **CORIANDER.** — Market quiet. Spot: Morocco is 87s. 6d. per cwt. in bond and 97s. 6d. duty paid; Argentine splits, 80s., duty paid; Indian, 105s. **CUMIN.** — Market continues quiet. Spot: Cyprus, 215s. per cwt.; Indian, 210s.; Malta, 220s.; Morocco, 205s., in bond, and 225s., duty paid. **DILL.** — Indian, unchanged at 85s. per cwt., spot London. **FENNEL.** — Indian on spot is 200s. per cwt. for small quantities only. The shipment price has dropped to 190s. per cwt. c.i.f., London. **FENUGREEK.** — Morocco is 46s. per cwt., duty paid, spot London or Liverpool.

SENEGA. — Spot supplies are offered at about 16s. 9d. per lb. Offers from origin are slightly higher than spot.

SHELLAC. — Lower. Spot quotations are: F.O.T.N., pure, 335s. F.O. Standard No. 1, 345s., and fine orange, 375s. to 425s. per cwt., ex-London warehouse.

STROPHANTHUS. — *Kombé*, 100 per cent. is quoted at 20s. per lb. on the spot.

STYRAX. — Unchanged. Spot is up to 9s. per lb., duty paid, and 8s. 3d. in bond.

WAXES. — **BEES'.** — Dar-es-Salaam on the spot is 550s. per cwt.; shipment, 505s., c.i.f. Benguela on the spot is 515s. in bond; shipment, 515s., c.i.f. **CANDELILLA.** — Spot supplies are offered at 630s. per cwt.; no shipment offers. **CARNAUBA.** — Prime yellow, spot, 1,070s. per cwt.; shipment, 900s., c.i.f. Fatty grey, spot, 860s. per cwt.; shipment, 820s., c.i.f. **MONTAN.** — Reibek crude on the spot is 135s. per cwt. **OURICURI.** — Spot, 0.5 per cent. impurities, 775s. per cwt. **SPERMACETI.** — Spot supplies are from 2s. to 2s. 3d. per lb.

WITCH HAZEL. — Leaves on the spot are quoted at 2s. 6d. per lb.

Essential and Expressed Oils

ALMOND.—English-expressed is from 6s. 6d. to 6s. 10½d. per lb.; offers of imported oils from origin are similar.

ANISE.—Spot supplies are 9s. 3d. per lb., nominal, and 8s. 3d. c.i.f., forward.

BOIS DE ROSE.—Brazilian on the spot is 33s. per lb.

CASTOR.—B.P. oil on the spot is £306 per ton; Firsts, £300; Seconds, £290, all in non-returnable drums, ex mill. Quotations for forward delivery are from £10 to £25 per ton less than spot prices as to date.

CINNAMON.—B.P. oil on the spot is quoted at from 65s. to 70s. per lb. English bark oil is offered at 24s. per oz. Seychelles leaf, 14s. per lb., spot.

CITRONELLA.—Spot prices for original drums are: Ceylon, 7s. 6d. per lb., Formosa, 7s. 9d., and Java, 10s. Forward quotations for Ceylon are about 6s. per lb., Formosa, 6s., Java, 7s. 5d., all c.i.f.

CLOVE.—English-distilled bud oil is from 40s. to 43s. per lb. Madagascar leaf on the spot is 19s. per lb., duty paid, and 14s. 6d., c.i.f., for shipment.

COD-LIVER.—Medicinal, B.P., is 14s. per gall. in charged returnable drums and 15s. 6d. per gall. in 1-gall. tins; delivered. Veterinary is from 12s. per gall.

CORIANDER.—Russian-seed oil is 185s. per lb., nominal. Dutch-seed oil, 180s. per lb.

CUMIN.—Quotations for English-distilled oil are about 75s. per lb.

DILL.—English-distilled oil is quoted at about 65s. per lb. for B.P. quality. Imported oils are offered at 41s. 6d. per lb. with East Indian at 30s. spot.

EUCALYPTUS.—Firm. 70 to 75 per cent. eucalyptol on the spot is from 9s. to 9s. 3d. per lb. and 80 to 85 per cent., from 9s. 3d. to 9s. 6d. There are few offers from origin.

GINGER.—English-distilled oil is in the region of 170s. to 230s. per lb., as to grade. Imported oils are available at from 100s. per lb.

JUNIPER BERRY.—Imported oils are offered at from 19s. per lb., duty paid. English-distilled is offered at 75s. to 95s. per lb., as to seller and grade.

LAVANDIN.—Quotations for spot supplies are about 24s. per lb.

LAVENDER.—French, 40-42 per cent. linanol on the spot is from 45s. to 47s. per lb. Spanish spike is 15s. 6d. per lb. for spot and 15s., c.i.f., for shipment.

LEMONGRASS.—Quotations are 15s. per lb., c.i.f., January-February shipment. Spot supplies are 19s. per lb.

LIME.—Limited supplies of West Indian distilled are about 67s. 6d. per lb., on the spot, for shipment, 65s., c.i.f.

NUTMEG.—English-distilled oil is from 48s. to 50s. per lb. Imported oil (B.P.) is from 37s. 6d. per lb., duty paid.

OLIVE.—Prices for spot supplies are steady. French virgin oil in 45-gall. drums spot, is 35s. 6d. per gall.; pharmaceutical 35s. French virgin (maximum acidity 1 per cent.), new-crop, is offered for December shipment at £255; Tunisian virgin at £250; and French pharmaceutical (maximum acidity 0.25 per cent.), at £250 per 1,000 kilos, buyer's licence, c.i.f., London.

PENNYROYAL.—Offers for immediate shipment are from 30s. to 35s. per lb., landed duty paid, as to source. Spot supplies are available at from 31s. per lb.

PEPPERMINT.—Chinese *arvensis* oil on the spot is 38s. per lb.; for shipment seller's licence, 35s., c.i.f., January-February shipment. Brazilian for shipment in 27s. per lb., c.i.f., and spot, 29s. nominal Italian is about 65s. per lb., c.i.f. forward.

PETITGRAIN.—Paraguay is offered at 24s. per lb., c.i.f. Spot supplies are from 27s. 6d. per lb.

ROSEMARY.—Quiet. Spanish on the spot is 8s. per lb., duty paid.

SPEARMINT.—U.S.P. is from 60s. to 62s. per lb. on the spot.

VETIVERT.—Bourbon in original drum is 180s. per lb., spot.

WORLD TRADE

Swiss Pharmaceutical Exports.—Switzerland exported chemical and pharmaceutical products to the value of 63.2 million Swiss francs during October 1951.

Higher Egyptian Import Duties.—The Egyptian Government imposed a 25 per cent. increase of customs duties on all imports, with few exceptions, from January 8. The increases are of existing specific (not *ad valorem*) customs duties.

New Factories in Philippines.—In port control in the Philippines has done little to conserve dollar exchange or encourage its utilisation in more productive fields of enterprises, but it has encouraged the setting up of new industries, including cosmetic and pharmaceutical plants.

U.S. Chemical Production Forecasts.—U.S. supplies of lead arsenate and benzene hexachloride for insecticides are expected to improve during 1952 but copper sulphate and sulphur containing insecticides are likely to become scarcer. Five phenol plant expansion projects have been approved for Federal tax help and four more are pending. Production of phenol by the end of 1953 should be at an annual rate of 623,000 lb.

COMING EVENTS

Sunday, January 13

ONDON PHARMACY RAMBLERS, winter walk in Epping Forest. Meet at Chingford station, 11 a.m. (10.17 a.m. from Liverpool Street station). Tea at Bell Inn, Bell Common, 5 p.m.

Monday, January 14

MFORD BRANCH, PHARMACEUTICAL SOCIETY, The Unicorn, Gidea Park, Essex, at 7.30 p.m. Mr. W. R. Roberts on "Recent Developments in Legislation Affecting the Practice of Pharmacy."

UTHAMPTON BRANCH, PHARMACEUTICAL SOCIETY, Polygon Hotel, Southampton, at 7.30 p.m. Mr. B. C. Bryant (Imperial Chemical (Pharmaceuticals), Ltd.) on "Man Against Insect" and "Discovery of a New Pigment." Films.

UTH SHIELDS PHARMACISTS' ASSOCIATION, Dorset Café, South Shields, at 7.30 p.m. Film evening.

EST KENT and SOUTH-EAST METROPOLITAN BRANCHES, PHARMACEUTICAL SOCIETY, Green Man, Catford, S.E.6, at 8 p.m. "Any Questions?" Dr. H. Davis (chief pharmacist, Ministry of Health), Messrs. H. Noble (secretary, National Pharmaceutical Union) and Norman Dewey (home sales manager, Allen & Hanburys, Ltd.).

Tuesday, January 15

IES' SECTION, LEEDS BRANCH, PHARMACEUTICAL SOCIETY, Great Northern Hotel, Leeds, at 7.30 p.m. Mrs. B. Jackson on "Personality and the Human Voice."

ORTH LONDON PHARMACEUTICAL ASSOCIATION and BRANCHES OF THE PHARMACEUTICAL SOCIETY and NATIONAL PHARMACEUTICAL UNION, Beale's Restaurant, Holloway Road, N.7, at 8 p.m. Mr. J. Reid (chairman, organisation committee of the Society's Council), and Mr. A. Aldington (member of N.P.U. Executive) on "Pharmaceutical Organisation Today."

TINGHAM BRANCH, PHARMACEUTICAL SOCIETY, Picture theatre, Medico-Chirurgical Society, 64 St. James' Street, Nottingham, at 7.30 p.m. Mr. J. Heseltine (a member of the Society's Council) on "A Pharmaceutical Survey."

ST MIDDLESEX CHEMISTS' ASSOCIATION and BRANCH, Feathers Hotel, Broadway, Ealing, London, W.5, at 8 p.m. Film show.

Wednesday, January 16

MINGHAM PHARMACEUTICAL ASSOCIATION, Botanical Gardens, Edgbaston, Birmingham, at 7 p.m. Dance. Ticket 7s. 6d.

SCOTTISH AND SOUTH-WESTERN SCOTTISH BRANCH, PHARMACEUTICAL SOCIETY, 220 St. Vincent Street, Glasgow, at 7.30 p.m. Mr. A. G. Fishburn (Imperial Chemical (Pharmaceuticals), Ltd.) on "Pharmacy in the United States."

ESTER BRANCH, PHARMACEUTICAL SOCIETY, Pots Café, Gallowtree Gate, Leicester, at 8 p.m. Mr. H. W. Tomski on "Economics of Retail Pharmacy."

CHESTER PHARMACEUTICAL ASSOCIATION and BRANCH, Grand Hotel, Manchester, at 7 p.m. President's social evening. Whist drive and nice.

FIELD BRANCH, PHARMACEUTICAL SOCIETY, Grand Hotel, Sheffield, at 7.45 p.m. Film show and discussion of resolutions for Branch Representatives' meeting.

TH-WEST LONDON CHEMISTS' ASSOCIATION and NATIONAL ASSOCIATION OF WOMEN PHARMACISTS, Royal Institute of Public Health and Hygiene, Queen Square, London, W.C.1, at 7 p.m. Mr. E. Goodwin Rawlinson on "Public Health from the Viewpoint of the Laboratory."

Thursday, January 17

MERSEYSIDE BRANCH, NATIONAL ASSOCIATION OF WOMEN PHARMACISTS, Y.W.C.A. Room, Slater Street, Liverpool, at 7 for 7.30 p.m. Annual meeting.

LIVERPOOL CHEMISTS' ASSOCIATION and BRANCH, Adelphi Hotel, Liverpool, at 7.30 p.m. Mr. E. A. Brocklehurst (a member of the Society's Council) on "The National Health Service Problems of the Pharmacist."

JUNIOR BRANCH, MANCHESTER PHARMACEUTICAL ASSOCIATION, Geographical Hall, Deansgate, Manchester, at 7.30 p.m. Talk on tropical medicine by a representative of Imperial Chemical (Pharmaceuticals), Ltd., illustrated by two films on malaria.

ROMFORD BRANCH, PHARMACEUTICAL SOCIETY, Heybridge Country Club, Ingateshore, at 6.45 for 7.15 p.m. Annual dinner. Ticket, including transport, 25s.

SOUTH-EAST LONDON CHEMISTS' ASSOCIATION and BRANCH, Pyne's restaurant, 153 Lewisham Way, London, S.E.14, at 6.30 for 7 p.m. Dinner and dance.

PORTSMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Solent Hotel, South Parade, Southsea, at 7.30 p.m. Open meeting. Films.

Friday, January 18

CHESTERFIELD BRANCH, PHARMACEUTICAL SOCIETY, Board room, Royal Hospital, Chesterfield, at 8 p.m. Dr. A. T. Mennie (Cyanamid Products, Ltd.) on "Aureomycin."

Saturday, January 19

WESSEX BRANCH, GUILD OF PUBLIC PHARMACISTS, Odstock Hospital, Salisbury, at 3.45 p.m. General meeting.

N.I. HEALTH BOARD

PHARMACEUTICAL services estimates presented to the Northern Ireland General Health Services Board at its meeting on December 28, 1951, show that expenditure in 1952-53 will amount to £1,481,000, against a revised estimate of £1,665,000 for the year. The actual cost in 1950-51 was £1,592,469. Explaining the decreases in the estimate for 1952, the assistant secretary and accountant said that, during the current period, arrears of the arbitration award were being paid. The chairman said that the Board was now catching up on arrears in payments to chemists.

It was reported that the Local Pharmaceutical Committee had agreed in principle to the adoption of the proposed new system of pricing of prescriptions using punch cards. The Board has also agreed to its adoption. The Pharmaceutical Advisory Committee after full discussion agreed that the arrangements for rota service should be reviewed, and instructed the secretary to request all chemists participating in approved rota schemes to furnish details of the prescriptions actually dispensed by them during the next rota period.

TRADE MARKS

From the "Trade Marks Journal,"
December 28, 1951

For chemical products for the production of detergents (1).

HOSTAPAL, 702,123, by Farbwerke Hoechst vormals Meister Lucius & Bruning, Frankfurt-am-Main-Hoechst, Germany.

For non-medicated bath salts (3).

SUNSTAR, 702,695, by Joseph Lingford & Son, Ltd., Bishop Auckland.

For detergents (3).

QUIX, 702,848, by Joseph Watson & Sons, Ltd., Leeds.

For pharmaceutical preparations (5).

DICAL-D, 698,494, by D. Abbott Laboratories, Illinois, U.S.A. BUTRAPIN, LUSANE, MOR-ZATIL, 701,515-23, by Farbenfabriken Bayer, Leverkusen, Germany. AMINORM, 701,648, by Wallace Manufacturing Chemists, Ltd., 198 Finchley Road, London, N.W.3. HEXOPHAN, 701,981, by Hough, Hoseason & Co., Ltd., Manchester. NITROCINE, 702,008, by Mede Chemicals, Ltd., London, N.1. ADRESONE, 702,059, by Organon Laboratories, Ltd., London, W.C.2. MISAWA, 702,392, by Dave & Co., Kenya Colony. RELAPERN, 702,679, by Ballard & Co., Faringdon.

For sulphonamide compounds (5).

DOSULFIN, 699,263, by J. R. Geigy S.A., Basle, Switzerland.

For medicated saline preparations for human use for liver ailments (5).

ANDREWS EFFERVESCENT SALT, 702,293, by Scott & Turner, Ltd., Newcastle-on-Tyne.

For preparations of vitamins for addition to animal feeding-stuffs (5).

NUCLO, 702,304, by Cooper, McDougall & Robertson, Ltd., Berkhamsted.

For insecticides, fungicides and preparations for killing weeds and destroying vermin (5).

PETRANE, 702,492, by Ward, Blenkinsop & Co., Ltd., London, W.1.

For fungicides (5).

ZIBIMATE, 702,783, by W. Darlington & Sons, Ltd., Worthing.

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NOAH'S ARK, 702,961, by F. W. Hampshire & Co., Ltd., Derby.

For all goods (5).

BREVIDIL, 702,811, by May & Baker, Ltd., Dagenham, Essex.

For appliances for medical and orthopaedic massage (10).

POINT BY ROLLER, 697,383, by Léon Georges Granowski, Paris, France.

For surgical, medical and veterinary instruments and apparatus (10).

HELLIGE, 701,166, by Fritz Hellige & Co., Freiburg-in-Breisgau, Germany.

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Medical Leaflets.—Leaflets, folders and booklet etc., obtainable from manufacturers include those listed below:—

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BRITISH SCHERING, LTD., 229 Kensington High Street, London, W.8: "Neutradonna" (2-p. leaflet).

BURROUGHS WELLCOME & CO., 183 Euston Road, London, N.W.1: "Hexestrol, B.W. & Co. (blotter).

CHAS. ZIMMERMAN & CO., LTD., Dega Work Walmgate Road, Perivale, Greenford, Middlesex "Degalan and Kadomysin" (blotter); "Degalan" (4-p. leaflet and 8-p. booklet).

ELI LILLY & CO., LTD., Basingstoke, Hants "Enseals and Enseals P.A.S.", "Tylosterone (cards); "Topocaine" (blotter).

EVANS MEDICAL SUPPLIES, LTD., Speke, Liverpool, 19; "Bitevan" (4-p. leaflet).

HERTS PHARMACEUTICALS, LTD., Welwyn Garden City, Herts: "Pashets" (4-p. leaflet).

PHARMACEUTICAL SPECIALITIES (MAY & BAKER LTD., Dagenham, Essex: "Propamidine—M & B (sixth edition of 24-p. booklet); "Penicillin (third edition of 52-p. booklet; "Sulphamerazine (second edition of 16-p. booklet); "Unephral (second edition of 22-p. booklet); "Intrav Sodium" (fourth edition of 24-p. booklet); "S.V.C." (ninth edition of 20-p. booklet); "Plasmon" (first edition of 30 p. booklet); "M. & Water-soluble Contrast Media" (sixth edition 72-p. booklet); "Vinesthene, Vam" (fifth edition of 36-p. booklet).

ROUSSEL LABORATORIES, LTD., 847 Harrow Road, London, N.W.10: "Treatment and Prophylaxis Chilblains" (4-p. leaflet); "Sterogyl-15-Roussel Pulmonary Tuberculosis" (1-p. leaflet); "Summer and Winter Use of Sterogyl Vitamin D₂ Rous in Dermatology" (8-p. booklet); "Some View on the Action of Vitamin D₂" (8-p. booklet).

SHARPE & DOHME, LTD., Hoddesdon, Hert "Sulphadiazine Tablets" (6-p. folder).

WINTHROP PRODUCTS, LTD.: Africa House Kingsway, London, W.C.2: "Therapeutic Inc and Price List" (on demand to firms interested in export trade).

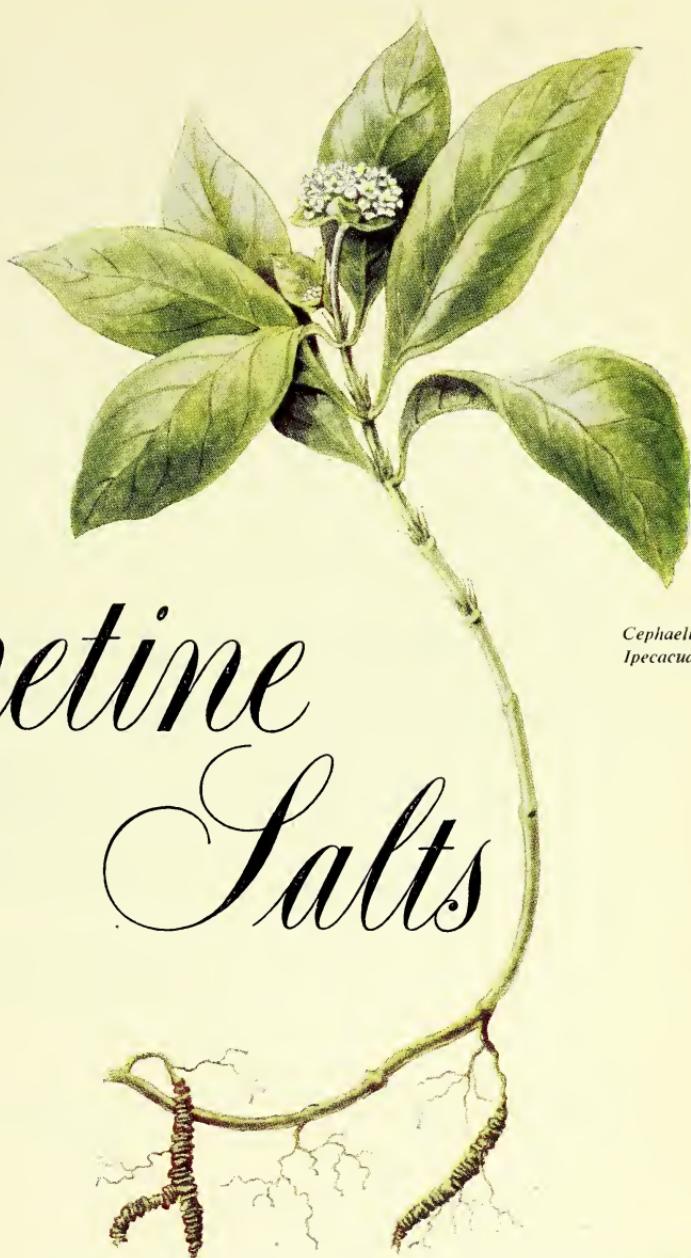
Answers to Revision Questions

1. Because they contain no moisture and therefore as contents of a closed container would not be subjected to moist heat sterilisation.

2. Procaine hydrochloride and sodium metabisulphite also have bacteriostatic effects which, together with 0.1 per cent of chlorocresol and a pH which is unfavourable for bacterial growth, produce a bactericidal solution.

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